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NEWS

September 17, 1956

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Inside Dope

By GEORGE
F. TAUBENECK



Learn to live and laugh —
thus delay your epitaph

Stories of the Week

Luck In Jail
Incidental Intelligence
Well, Whaddaya Know?
Leave 'Em Smiling
Laugh! It's Good for You!
Automation and Us
Golly! Gee Whiz!
How To Get Rich Quickly

Stories of the Week

On his 102nd birthday, Frank Bliven of Detroit told interviewers that he kept young by reading newspapers, and by taking a lively interest in politics and public affairs.

"That young fellow in the White House (Eisenhower) would do OK," he opined, "if folks would give him a chance."

"How's your married daughter making out these days?" gossiped a neighbor.

"She can't get along with her husband," admitted Mrs. Jones. "In fact, she hates him now. But then, isn't there always something to worry about?"

Luck In Jail

As a team four men bet correctly on 10 horse races at the Lima (Peru) track and wound up with some \$60,525. Each invested about 50 cents.

These lucky (?) fellows are incarcerated in the Lima prison. The Peruvian director of prisons deposited their money in a bank. They won't be allowed to collect until they are released. Ironically, the prisoner who picked the winners is doing a life term for murder.

You don't have to live right, apparently.

Incidental Intelligence

President of the Flint, Mich., CIO Council is Mr. Norman Bully.

Actually and truly, this happened.

A Detroit lad applied for "relief payments" at the Welfare Office.

"Are you the head of your family?" he was questioned routinely.

"Not yet. But if you'll give me 'relief' checks for groceries I'll get married right away. I don't need rent money because we can room with my mother."

Well, Whaddaya Know?

Up until now it had been our impression that a Phi Beta Kappa key and 10 cents would get you a cuppa coffee. But:

(Concluded on Page 10, Col. 1)

NCRSA Reports First Half Net, Sales Top '55

PHILADELPHIA — Substantial gains in sales and net profit in the first six months of this year over last year have been chalked up by members of the National Commercial Refrigerator Sales Association, according to Marie H. Lawton, executive secretary, who has also announced the addition of five new NCRSA members.

Total dollar sales increased an average of 29.21% in the first half of this year compared with the same period of 1955, with second-quarter sales showing a 20% gain.

Dollar net profit was up 35.79% in the first six months. Inventory on July 30, 1956 increased 28.07% over the same date last year, and accounts receivable rose 12.33%.

In all, 79% of the reporting distributors had sales increases in the first six months; 72% had greater sales in second quarter compared with the same period of 1955, and 66% reported an increase in net profit for six months.

New distributor members of (Concluded on Page 4, Col. 5)

RSES Sets Program For Boston Forum

CHICAGO — Complete program for the refrigeration and air conditioning regional educational forum to be held Sept. 21-23 at Boston's Bradford hotel has been announced by the Refrigeration Service Engineers Society.

Second in a series of three to be held this year and early 1957, the forum has been arranged to bring industry members up-to-date on current developments in refrigeration and air conditioning service and installation work.

Formal opening of the forum (Concluded on Page 28, Col. 1)

Cold Cash Went Into Ike's 3 Freezers, Columnist Says

WASHINGTON, D. C. — There's refrigeration equipment aplenty, including three freezers, on President Eisenhower's farm in Gettysburg, Pa. The units are not gifts. The President paid cash for them; he has the bills of sale to prove it.

This was reported recently in Drew Pearson's syndicated "Washington Merry-Go-Round" column.

The column, currently being written by Pearson's junior partner, Jack Anderson, pointed out that the freezer "is the famous appliance that caused the Truman Administration so much trouble. In 1949, Maj. Gen. Harry Vaughan accepted two

(Concluded on Back Page, Col. 1)

Detroit Adopts Limited License For Contractors

DETROIT — The city of Detroit has created new "restricted" refrigeration and heating contractor licenses and smoothed the way for a qualified contractor in one field to become licensed in the other.

The changes were written into the city's refrigeration code and gas and oil burner code in a series of amendments that became effective on Sept. 6.

Under the new set-up, a licensed Class B or C refrigeration contractor who can qualify for a restricted heating contractor's license will be permitted to install—but not service—gas-fired design heating units of up to 300,000 B.t.u.h. input and oil-fired design heating units using Nos. 1, 2, or 3 distillates and having a maximum fire rate of 3 g.p.h.

Conversely, a licensed heating contractor who can qualify for a restricted refrigeration contractor's license will be permitted to install—but not service—self-contained comfort air (Concluded on Page 8, Col. 1)

Room Unit Mfrs. To Give B.t.u.h. Ratings of Models to Outlets

M-H To Enter Electronic Air Cleaning Field

MINNEAPOLIS — Minneapolis-Honeywell Regulator Co. is making preparations to enter the rapidly-expanding electronic air cleaning field according to Paul B. Wishart, president.

He said the company would develop and produce electronic air cleaning equipment, and would begin marketing activities in the field early in 1957. Manufacturing operations will be carried out at the firm's plant at Wabash, Ind.

In the new undertaking, Honeywell will work in cooperation with Trion, Inc. of McKees Rocks, Pa., which has been a major producer of electronic air cleaning equipment for nearly 10 years.

The two firms have entered into a licensing agreement which (Concluded on Back Page, Col. 5)

Every Ad Won't Need To Carry Ratings ARI Director Explains

WASHINGTON, D. C. — The decision of 21 room air conditioner manufacturers to make public the B.t.u. per hour cooling capacity ratings of their units as part of their 1957 sales promotion doesn't mean that every newspaper advertisement offering room units will give the B.t.u. ratings for every unit offered.

So stated Geo. S. Jones, Jr., managing director of the Air-Conditioning & Refrigeration Institute, in clarifying the recent announcement of the manufacturers' action.

As reported in the Sept. 10 issue of the NEWS, the action came as ARI's Room Air Conditioner Section adopted a proposal that cooling capacities of room air conditioning units be published on the basis of ratings and tests performed under ARI Standard 110-56. This standard provides for expression of capacity in terms of British Thermal Units.

Jones indicated the manufacturers realize that including B.t.u. ratings of each room air conditioner offered in every newspaper ad might prove cumbersome for retailers.

Therefore, a prominent statement in distributor or retailer ads that the B.t.u. ratings are available to any interested consumer upon request at the store will be just as acceptable, it was pointed out.

The manufacturer will make available to the distributor and the retailer the ratings for each model on the market.

Jones said the producers plan to emphasize to the public that B.t.u. ratings can be obtained (Concluded on Back Page, Col. 2)

Change Chicago Site of '57 ARI Show

WASHINGTON, D. C. — Chicago's International Amphitheatre has been selected as the site for the 10th Exposition of the Air-Conditioning and Refrigeration Industry, it was announced by Geo. S. Jones, Jr., managing director of the Air-Conditioning & Refrigeration In- (Concluded on Back Page, Col. 1)

BEHIND PAGE ONE . . .

Creating Ice Maker Prospects

Dealer Shows Grocers and Restaurant Operators How They Can Profit by Use of More Ice..... 12

Longer Apple Storage

New York Warehouse Utilizes 'Modified Atmosphere' To Lengthen Storage and Retail Shelf Life of Fruit..... 19

Home Air Conditioning Relieves Asthma

Distributor Describes System as He Designed It..... 22

Servicing Weathertron Heat Pumps

..... 27

Regular Features

What's New..... 20

Refrigeration Problems..... 24

Slants on Service..... 25

Patents..... 30

NARDA Asks Mfrs. To State Position On Central Service, Avoid Conflict

CHICAGO — Essentiality of issued the following statement:

"Most NARDA members are self-servicing in both appliance and television. Most use service as a tool to create a greater volume of sales. There also is a large group who see that service yields as great or even greater profit than the sale of new appliances.

"New developments impose on NARDA the responsibility of pointing the way and leading the servicing industry.

"What we need is a Paul Revere to awaken the servicing (Concluded on Page 29, Col. 1)

DETROIT — Appointment of Frank C. Hawk as general manager of the Betz Div., Bohn Aluminum & Brass Corp. was announced here recently by Terry W. Kuhn, executive vice president of Bohn.

Hawk was formerly vice president in charge of sales for the Brunner Mfg. Co. He has been in the refrigeration and air conditioning industry for 21 years holding various engineering and sales management positions.

Bohn recently purchased Betz Corp. of Hammond, Ind., manufacturer of coil surfaces and complete convection units, and moved it to a newer and larger plant in Danville, Ill.



F. C. Hawk

What's in a name?

FOR REFRIGERATION
& AIR CONDITIONING
EQUIPMENT



QUALITY ...if the Name is READING COPPER TUBING

READING TUBE CORPORATION

EMPIRE STATE BUILDING NEW YORK 1, N. Y.
WORKS: READING, PA.

Acme Names Merrill Field Sales Manager

JACKSON, Mich.—Wm. R. Eichelberger, vice president-director of sales, Acme Industries, has announced the appointment of Duane G. Merrill, sales manager, field sales.



D. G. Merrill, eastern regional manager with headquarters in New York City.

Merrill, a graduate of Rensselaer Polytechnic Institute, holds a B.S. degree in mechanical engineering.

Prior to joining Acme, he saw three years' active during during World War II, it was disclosed.

Submarine Conditioning Principle Heats, Cools New Miami Beach Hotel

MIAMI BEACH, Fla.—Principles of air conditioning developed for use in the atomic submarine *Nautilus* have been adapted to cool and heat the new Americana hotel in Bal Harbour, it was reported by E. G. Carroll, president of Hill-York Corp., Miami.

Installed at the Americana, which opens Nov. 25, is 750-hp. of York marine-type reciprocating compressor assemblies connected to over 1,000 tons of air handling units.

Because the huge units are the same type used in submarines, no cooling towers are used. Huge salt water wells on the Americana property will produce condensing water at the rate of 2,250 g.p.m.

This water will be used to remove heat from condenser units and the water will then be pumped back into the ocean—10° warmer than when it came from the wells.

York compressors chill the water used in the conditioning system to 45° before piping it to the 500 outlets throughout the hotel. In each guest room, the occupant will be able to choose his own degree of coolness by individual thermostats.

To save space, the room units are located in the ceiling. On the very few days when heat is needed in Florida, the system will be reversed to supply warm air.

Designed to provide air conditioning for as many as 3,000 persons in the hotel at any one time, units range from 1-ton capacity in the guest rooms to 121.3 tons provided for the convention hall. More than 150,000 lbs. of sheet metal went into the ductwork.

The \$17 million Americana features 475 rooms, suites, and apartments; 600 ft. of private ocean-front; 10 acres of landscaped grounds; an olympic-size swimming pool surrounded by 100 cabanas; and acres of lounge and recreation areas amid tropical gardens.

Worthington Appoints Mattullo Branch Mgr.

NEW YORK CITY—J. R. Mattullo has been appointed branch manager of the Worthington New Jersey sales office, it was announced recently by W. J. Van Vleck, manager, New York district office.

A graduate of New York university where he obtained a Bachelor of Science in mechanical engineering, Mattullo joined Worthington in 1934 as an application engineer in the Harrison Div. Rotary Pump Sales Dept.

In 1936 he was transferred to the corporation's New York district office, serving here until 1938 when he returned to Harrison to serve in the New Jersey sales office as a general line salesman until his present appointment.

During World War II, Mattullo served as a major in the Corps of Engineers. He is a licensed professional engineer in the State of New Jersey.



HINGED PAN quick and easy access

Praised for years by installation and service men.

Built-in Heat Exchanger

NO RUSTING—polished
aluminum casing



WRITE NOW
FOR
BULLETIN C-192-7

KRAMER TRENTON CO. • Trenton 5, N.J.

For more information about products advertised on this page use Information Center, page 20.

**New 1957
Kelvinator
Automatic
Washers**



Model WAG-6
Packed with top-of-the-line features,
priced for volume sales.

**TESTED AND PROVED
ON THE RETAIL FLOOR**

The Amazing

"Magic Minute"

60 seconds of automatic
pre-scrubbing with double-rich
suds before the regular washing
begins, cuts grease better,
washes everything cleaner

**THE MOST DRAMATIC, THE MOST
CONVINCING, AUTOMATIC WASHER
DEMONSTRATION FEATURE
TAKES ONLY 60 SECONDS!**

Proven Programs and Promotions are
now ready to enable the Kelvinator
dealers to take full and immediate
advantage of this sensational traffic
building sales-making Kelvinator exclusive

**IT'S IN EVERY
New 1957 KELVINATOR
AUTOMATIC WASHER--
IMPOSSIBLE IN ANY OTHER WASHER**

**The Balanced
Line!**
6 MODELS
**FULLY
AUTOMATIC**
Priced for Profit
Priced for Volume
DYNAMIC
PROMOTIONAL
MODELS
and
MATCHING
DRYERS

11-Week Contest

Amana's 'Shares In America' Due for Top Conditioner, Freezer, Combination Sales

AMANA, Iowa—For 11 weeks investment, rather than a one-starting Sept. 15, appliance shot reward, it was explained by George C. Foerstner, executive vice president of Amana. "Each month that the dealer owns United Science Fund shares, their value should increase, just as the real value that is America continues to grow," he said.

The "shares in America" to be awarded dealers for buying and selling Amana freezers, freezer-plus-refrigerators, and central air conditioners are in-coming-producing stocks in a "blue-chip" mutual fund, the Amana United Science Fund. Each share of this dividend-paying fund currently is valued at about \$12.50 a share.

The prizes in the "Own a Share of America" promotion are unique because they are an in cooperation with Waddell &

Reed, of Kansas City, the fund's principal underwriter.

The United Science Fund is composed of holdings in more than 90 corporations in nine major growth industries, Foerstner said. All are companies, like du Pont, Union Carbide, Eastman Kodak, Alcoa, Standard Oil of New Jersey, and Dow Chemical, which invest considerably in scientific research—the "soundest basis for growth."

All dealers participating in the promotion receive a kit of sales promotion tools, including: 200 newsprint broadsides, three window banners of varied sizes, consumer magazine ad reprints for display purposes, product book, spec sheets, ad mats, and TV and radio spot announcements.

During the promotion, Amana's new blue and yellow clock sign is being offered to dealers at more than 30% less than the regular price.

G-E To Hold Regional Air Conditioner, Heat Pump Distributors Sales Meetings

BLOOMFIELD, N. J.—The tributors from the south central region on Sept. 27 and 28, from the central region Oct. 1 and 2, and southwestern Oct. 4 and 5. Weathertron distributors from the south central region will meet at the Grove Park Inn on Sept. 25 and 26, while those from the other two regions will meet there on Oct. 2 and 3.

West Coast commercial and industrial department distributors will gather Oct. 15 and 16 at the Hotel Naples in Reno, Nev. Weathertron distributor meetings will be scheduled later.

Referee Asks Court To Have Nelson Chapter 11 Reorganization Changed

ST. LOUIS—A legal effort was made recently to force the N. O. Nelson Co., wholesaler of refrigeration, plumbing, and heating supplies, to reorganize under Chapter 10 of the Bankruptcy Act.

If the effort is successful, it will pave the way for an investigation by the Securities Exchange Commission into all activities and stock transactions involving the company.

The Nelson firm is now operating under Chapter 11 of the Act, which does not provide any means for S.E.C. entry into the case.

The effort was made by Bankruptcy Referee William O'Herin. O'Herin recommended to Federal District Judge Roy W. Harper that he dismiss a petition by Nelson unless the petition is changed to a reorganization under Chapter 10.

Nelson had asked the Judge to approve a plan for extending payment of its unsecured debts, amounting to about \$2.3 million, under Chapter 11.

If Judge Harper rules in favor of O'Herin, Nelson would be permitted to change its petition. But if it failed to act, creditors could force a Chapter 10 reorganization, it was pointed out.

The company laid its financial distress to an unrepaid \$3,428,00 loan to Bellanca Corp. and a \$3,598,155 dividend declared on its common stock, more than 90% of which was held by Bellanca.

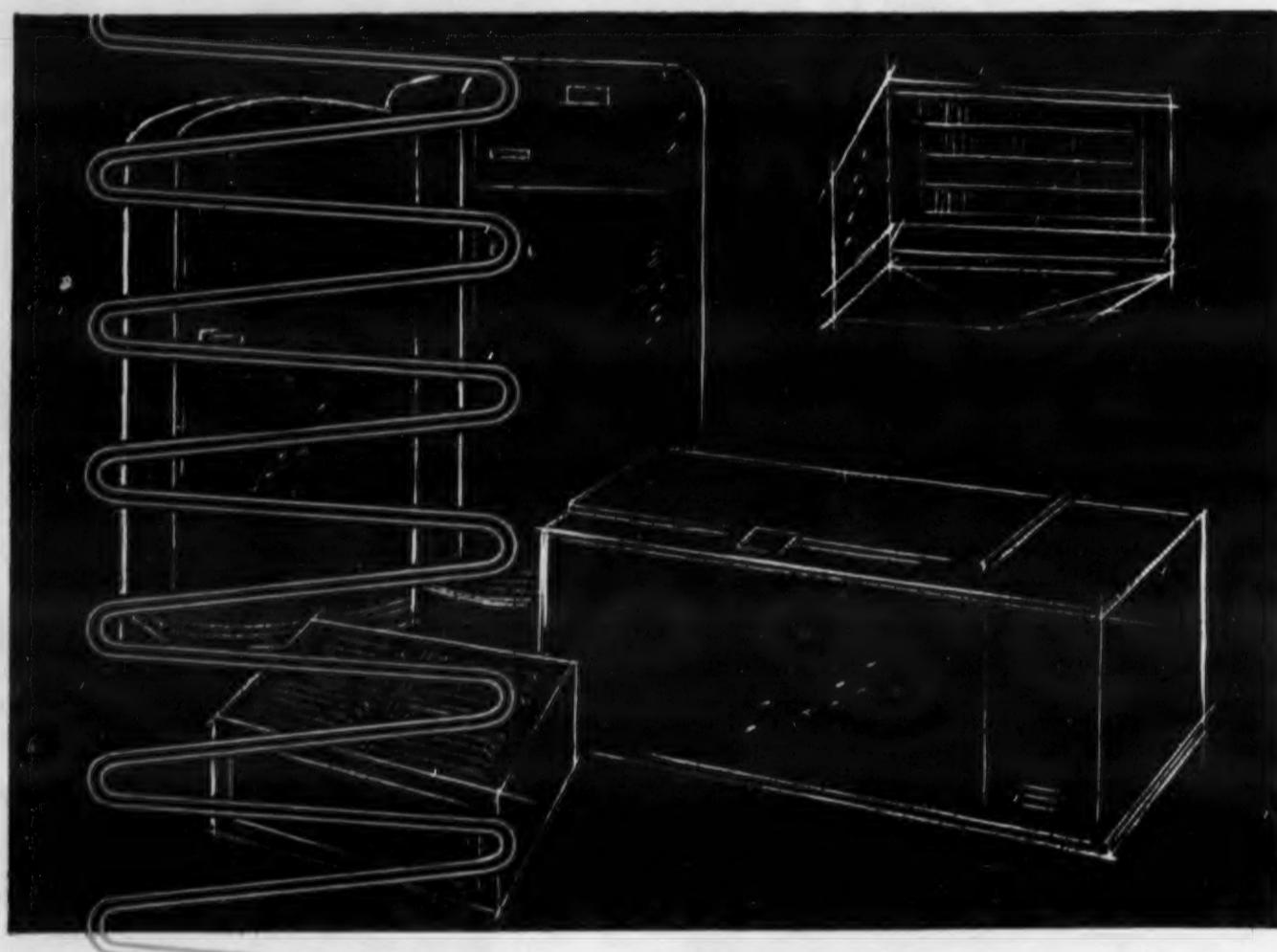
Bellanca and its president, Sidney L. Albert bought control of Nelson in September, 1955 for \$4,850,000 and on March 1 sold it to Automatic Washer Co. for 950,000 shares of Automatic Washer common stock. Bellanca later sold its Automatic Washer stock. Albert owned more than 9 million shares of Bellanca stock.

It is these activities, presumably, that the S.E.C. wants to investigate.

NCRSA Reports --

(Concluded from Page 1, Col. 2)

NCRSA include Birkenwald Equipment Co., Portland, Ore.; Champe Webb Refrigeration Co., Charlotte, N. C.; Consolidated Services, Inc., Seattle. New associate members are Spee-Dee Checkout Systems, Inc., Grand Rapids, Mich., and Robert Becht Co., Cincinnati.

Tubing Drawn by PENN is *Better!*

The uniform standards in wall, grain structure and temper in specified PENN Quality tubing and the vigilant watchfulness in protected shipments permit *more feet of usable tubing per pound* through less waste.

The friendly cooperation of the entire PENN staff to adjust themselves when the unusual happens and PENN'S faithful "on time" delivery which is *maintained in connection with definite and often times close production schedules* all adds up to a Plus that is pretty hard to evaluate in dollars and cents.

For over a third of a century now, PENN continues to lead the way in supplying better tubing from 1" O.D. to capillary .062 in straight—coiled—fitted—flared and fabricated forms for the Refrigeration and Air Conditioning markets. No matter what you do, if you need TUBING, you can do it BETTER with PENN Quality—Specify it.

Nothing quite matches this Penn trio. PENN uniform quality—PENN dependable trustworthiness and PENN friendly cooperation. Get to know them and you'll agree. Write direct or contact the PENN representative in your area.



PENN BRASS & COPPER COMPANY
ERIE, PENNSYLVANIA TELEPHONE 3-1164

BOSTON Joseph Leibert
CLEVELAND Service Equipment Co. Inc.
CHICAGO H. W. Gehlert Co.
DETROIT W. J. Godell Co.
DAYTON Karl W. Wilke, Jr.
METROPOLITAN N. Y. area
John J. Condon Co.
NEW YORK STATE George Wellman
PITTSBURGH George H. Craig
ST. LOUIS A. O. Werner & Sons
WISCONSIN William Clark

MARCO CONTINUES TO SET THE PACE

AFTER TEN YEARS OF LEADERSHIP IN SUPPLYING THE AIR CONDITIONING INDUSTRY

Marco Industries, Inc., the first company to apply shaded pole motors for industrial purposes, has produced this month, September 1956, its six millionth motor. This is the company's tenth anniversary year. We are proud of this record.

Consolidation of manufacturing facilities in an 85,000 sq. ft. plant in Womelsdorf, Pennsylvania, is now complete, enabling Marco Industries, Inc., to fulfill any order from 100 to 100,000 motors with delivery date guaranteed.

This means that Marco Industries, Inc., is now equipped to produce up to 7,000 motors a day in a variety of designs. Custom designed motors are developed and produced to your engineering specifications or manufacturing requirements.

To provide better service to its many customers, Marco Industries, Inc., has enlarged its application engineering force in the field to insure quick attention to every fractional horsepower motor problem confronting manufacturers of air moving equipment.

Marco Industries, Inc. has grown since 1946 to be the leading supplier of shaded pole and permanent split capacitor motors to the air conditioning industry in the United States and throughout the world. It is the only company to concentrate its entire resources in the development and production of fractional h.p. motors for the air moving industry.

The air moving industry recognizes that the reputation of Marco motors has been built on

- Ten years of trouble-free, dependable performance in the field
- Guaranteed delivery geared to production line schedules
- Prices geared to industry requirements
- Rigid close tolerance construction to provide smooth, quiet operation

Shaded Pole Motors

1/100 to 1/4 h.p.

Permanent Split Capacitor Motors

1/100 to 1/3 h.p.

As the air conditioning industry expands in the coming decade, Marco Industries, Inc., a member of the manufacturing team that has supplied millions of Americans with the world's finest air conditioning and other air moving equipment, is ready to do its part.

G. RUSSELL EDDY
Executive Vice President

APPLICATION ENGINEERS IN THE FIELD

Greater New York City Area

W. E. MACBETH

88 Cooper Drive
New Rochelle, New York
Phone: New Rochelle 2-0802

Formerly with Howard Industries
and Nash Kelvinator

Cleveland Area

MILTON E. MEYER

Commercial Electric Company
1250 St. Clair Avenue N.E.
Cleveland 14, Ohio

Phone: CHery 1-2886

Chicago Area

SAMUEL STEIN

Spartan Engineering Company
119 S. Jefferson Street
Chicago 6, Illinois
Phone: CEntral 6-3905

St. Louis-Memphis-Little Rock-Southern Illinois Area

R. W. & O. A. BAUMANN, JR.

575 Arcade Building
St. Louis, Missouri
Phone: CEntral 1-1677
Associated 8 years with Baldor Electric Co.

Upper New York State

MILTON C. MATTHEWS

P. O. Box 612
Rochester 2, New York
Phone: BRowning 2143
Formerly with Delco Appliance Division,
General Motors Corporation

MARCO INDUSTRIES, INC.
WOMELSDORF, PENNSYLVANIA

Room Air Conditioners

Emerson Radio Plans \$8,000,000 Ad, Sales Promotion Campaign

JERSEY CITY, N. J.—The largest and most comprehensive advertising and sales promotion campaign in the history of Emerson Radio & Phonograph Corp. has been scheduled for the ensuing year at a total cost in excess of \$8,000,000, it was announced by Lester Krugman, vice president in charge of marketing.

The campaign will cover air conditioners, television receivers, radios, and phonographs, and will include national magazines, newspapers, trade papers, and extensive sales promotion materials.

A vital aspect of the campaign, Krugman added, will be a new cooperative advertisement program, which, he reported, will be entirely factory paid.

The national magazine schedule will include full page ads, double page spreads, and color ads in *Life*, *Look*, *Saturday Evening Post*, *Colliers*, *Fortune*, *Time*, *The New Yorker*, *Better Homes & Gardens*, and *New York Times Sunday Magazine*.

In addition, a series of ads has been planned for special products pinpointed for special markets in specific magazines.

The sales promotion campaign will include streamers, banners, displays, broadsides, direct mail, "Silent Salesmen" permanent fixtures, illuminated color outdoor-indoor signs, and many other sales devices and point-of-sale material.

The entire campaign was planned by Grey Advertising Agency (Ted Kaufman and Armand Rivechun) in conjunction with Krugman; Edward Kantrowitz, Krugman's assistant, and Albert Leon, Emerson's sales promotion manager.

Cory Names Russell In New England Area

CHICAGO—J. W. Alsdorf, president of Cory Corp., announced recently that Richard H. Russell has assumed territory manager responsibilities for all Cory, Niero, and Fresh'nd-Aire consumer and commercial products throughout the seven-state New England area.

R. H. Russell



Russell has represented and sold Fresh'nd-Aire products in New England for the past 20 years. He brings 36 years of extensive selling experience to his new position.

To augment his own sales efforts, Russell plans to add sales assistants to his staff.

Currently a resident of East Milton, Mass., Russell will continue to live near Boston.

L.O.F. Promotes Fox

TOLEDO—Herbert A. Fox, formerly technical manager of the L.O.F. Glass Fibers Co. plant in Parkersburg, W. Va., has been promoted to director of the Future Planning Div. of the company.

Fox will headquartered at the new Research Center in Water-ville, Ohio.

Mathes Expects Increase In Second Half of '56

WILKES-BARRE, Pa.—Sales of Mathes Co., Inc. during the second quarter of 1956 compared favorably with last year and an increase in business is expected during the second half of the year, Francis O. Case, president of Glen Alden Corp., the parent company of Mathes, announced recently.

Case added that Mathes is ex-pected to contribute significantly

to Glen Alden's earnings for 1956.

Glen Alden's earnings for the second quarter rose sharply over the first quarter level and were ahead of the comparable period of last year, he reported.

For the three months ending June 30, earnings totaled \$758,282, equal to 43 cents a share. This compared with \$690,000, or 39 cents per share in the comparable period last year. First quarter earnings were \$18,885, or 1 cent per share.

Air Conditioning & Refrigeration News, September 17, 1956

Gibson Room Unit Sales Up 102% for 7 Months

GREENVILLE, Mich.—Gibson room air conditioner sales during the first seven months of the year were up 102% over last year, W. C. Conley, vice president in charge of Gibson domestic sales, announced here recently.

Speaking to divisional sales managers for the Gibson Refrigerator Co., he added that refriger-

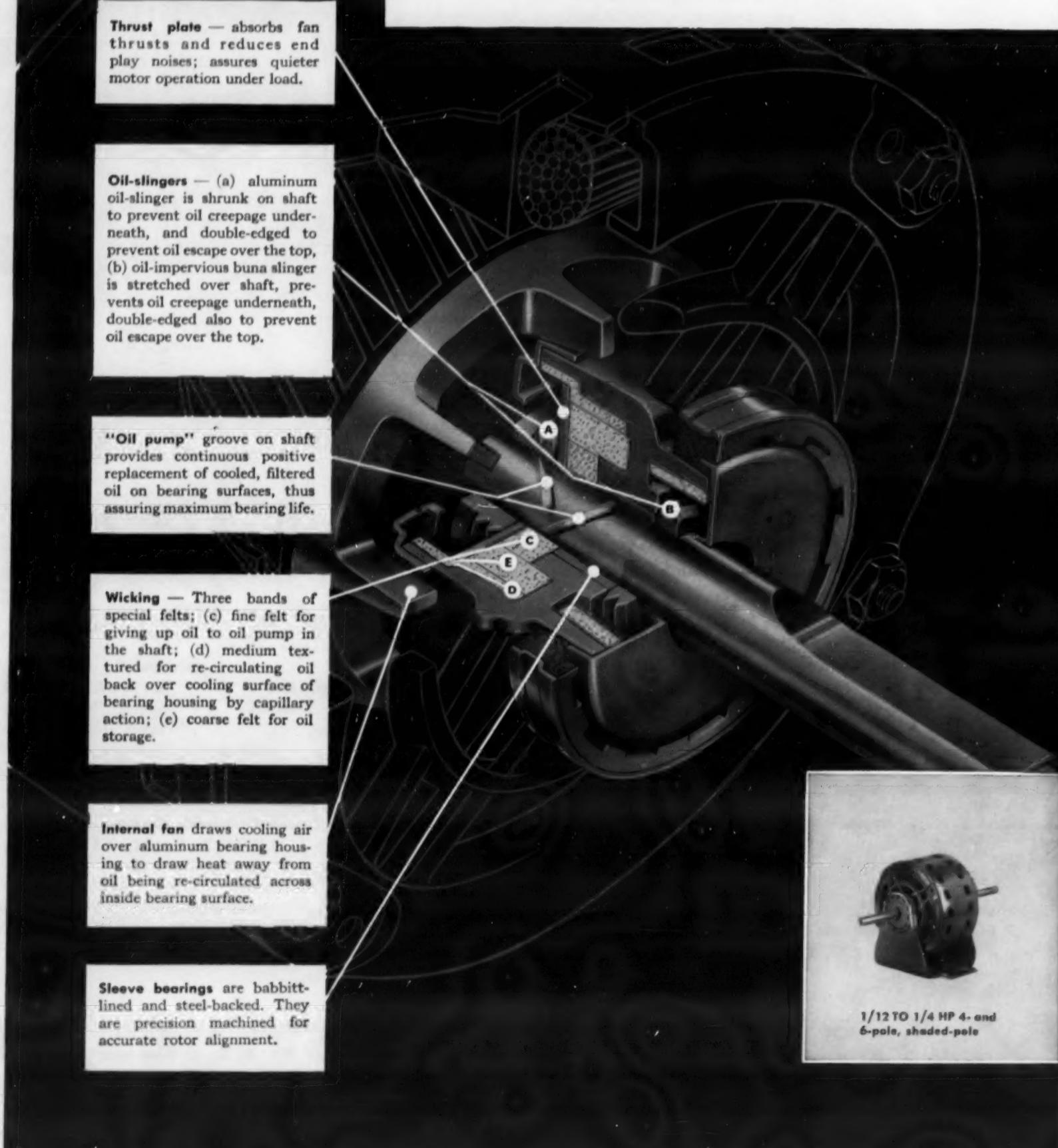
ator sales were up 14% and freezer sales were up 21%.

Conley also announced that the firm's national sales rally would be held in Hollywood, Fla. during late October.

Norge Promotes Martin

CHICAGO—Roland H. Martin has been promoted to district manager, responsible for sales of Norge home appliances to distributors in Billings, Mont., Portland, Ore., Seattle, and Spokane, Wash.

Unique General Electric continuously bathes



1/12 TO 1/4 HP 4- and 6-pole, shaded-pole

Sees Automated Apartments

Central Master Control for Heating, Air Conditioning, Checking Door, Alarms

MINNEAPOLIS — Apartment Gove described centralized buildings can effectively use master control systems under "automation techniques" to increase operating efficiencies, W. T. Gove, manager of apartment activities for Minneapolis-Honeywell Regulator Co., told the National Apartment Owners Association here recently.

The operator, he said, could also check people seeking entry to the building by closed-circuit

television, could receive messages from tenants, and could supervise the performance of many other automatic service functions.

Integrated with the master panel could be individual apartment "service centers" containing tenants' telephones, communication with the front lobby, door locking controls, heating and air conditioning controls, light switch, and a fire and prowler alarm system, Gove commented.

Firm Plans Perimeter Heat, Coleman Denies Heater Air Conditioning In Bldg. Patent Infringement; Plans High Court Fight

ST. LOUIS—Northlight, Inc., has just announced plans for a two-story office building equipped with air conditioning and heating of the perimeter type.

Officials said a continuous spray of water will play on the roof "to lower operating costs of the building's air conditioning system."

WICHITA, Kan.—The Coleman Co. has announced that the recent refusal of the Ninth U. S. Court of Appeals to grant a rehearing in the patent suit with respect to the Holly Mfg. Co.'s "Narrowwall" wall heater patent will in no way affect the manufacture, sale, and delivery of Coleman wall heaters and "Economizers" as now made.

A. B. Newton, the company's engineering vice president, made the announcement following notification by the court of its refusal to grant a rehearing.

Coleman said it considers the present decree to be erroneous and is instituting the necessary proceedings to take the matter before the U. S. Supreme Court.

The present decree, the company explained, is not final and will not become effective until completion of the Supreme Court proceedings.

Furthermore, the company said, wall heaters and Economizers as now manufactured by Coleman do not infringe the patent that was in suit.

Newton explained that as soon as the decisions of the courts made it possible to define the specific items of alleged infringement Coleman design engineers went to work to design a unit that did not incorporate the alleged infringement.

Not only were they successful, he said, but they actually improved the performance of the wall heater at the same time they removed it from the possibility of infringement.

All heaters manufactured since early July have incorporated this improvement, and, furthermore, Coleman dealers and distributors have been furnished the necessary parts to convert units already in their stocks.

Mueller Ups Hume to Purchasing Director

MILWAUKEE—Appointment of Robert F. Hume as director of purchasing for Mueller Climatrol, Milwaukee heating and air conditioning manufacturer was announced recently by F. J. Nunlist, executive vice president.

Hume, who has spent some time in practically every department of the company has been with the firm since March 1946.

Hupp's Quarterly Earnings Top \$1 1/4 Million on June 30

CLEVELAND—Record quarterly earnings were reported by Hupp Corp., manufacturer of heaters and air conditioning and refrigeration equipment.

For the three months ended June 30, estimated earnings after taxes were put at more than \$1 1/4 million and sales topped the \$17 million mark, according to Don H. Gearheart, president. This included operations of the newly-acquired Gibson division for May and June.

For the comparable quarter in 1955, Hupp earned \$39,052, or two cents a share.

shaded-pole motor bearing itself with cool, filtered oil

Special "oil pump" on shaft plus oil impervious slingers permit "sealed-in" lubrication for MAXIMUM BEARING LIFE

In a continuous cycle, a cooled and filtered oil supply is re-circulated through unique G-E shaded-pole motor bearings. Oil is "sealed-in," eliminating need for re-oiling and permitting maximum bearing life plus quieter operation. Just how "sealed-in" lubrication works is described in the illustration at the left.

"Sealed-in" lubrication on G-E shaded-pole motors is just one feature that makes these shaded-pole motors your best buy. Additional features of G.E.'s new 1/12 through 1/4 hp line of shaded-pole motors for larger fan drive ratings are:

Moisture-resistant resin insulation permeates every crevice and air space in slots, and between windings—dries hard and durable.

Forced internal ventilation from aluminum fan blades means cooler operation for longer bearing and insulation life.

Shell-type construction makes possible a short, lightweight, double-end ventilated motor—helps increase temperature differential between winding and bearings for longer life.

Aluminum end castings of new design are sturdily

constructed to assure precise bearing alignment. Generous ventilating openings provide optimum cooling.

New cushion rings are firmly clamped in place and with bonded outer ring hold motor firmly in its base under rigorous shipping conditions; also provide for quieter, vibration-resistant operation.

Pressure-cast aluminum rotor and fan blades help dissipate rotor heat for cooler, longer life bearings and insulation.

Short length of these new motors permits you to design more compact, better-looking products. Saves on your materials, too.

Three-way mounting is offered on this line of G-E shaded-pole motors: cushion end-rings, thru-bolts, resilient cradle bases. Also available are extra-high bases, and Quick Clamp mountings.

EXPERT APPLICATION HELP from G-E engineers is available to you. For complete shaded-pole motor service, contact your local G-E Apparatus Sales Office. Or write for Bulletin GEA-6134 to Section 632-1, General Electric Co., Schenectady 5, N. Y.

Progress Is Our Most Important Product

GENERAL  **ELECTRIC**

SETTING THE PACE IN MOTORS FOR THE AIR CONDITIONING AND HEATING INDUSTRIES



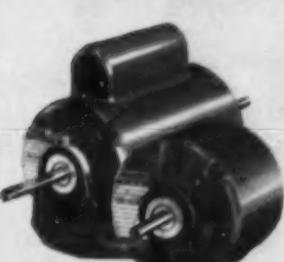
25 MHP TO 1/12 HP 15 TO 35 MHP 2- and shaded-pole and perm. 4-pole, shaded-pole split cap.



1.5 TO 16 WATTS 4- and 6-pole, shaded-pole



1/6 TO 1/2 HP, split-phase



35 MHP TO 1/2 HP, perm.-split-cap.



1/6 TO 3/4 HP, capacitor-start

Detroit Refrigeration-Heating License Code Changes--

(Concluded from Page 1) ditioning units of not more than 7½-hp. capacity.

The amendments also permit a licensed Class B or C refrigeration contractor, when recommended by the refrigeration board of examiners, to take an examination for a full or restricted heating contractor's license, without having the required experience in the heating field.

And, reciprocally, a licensed heating contractor, when recom-

mended by the gas and oil from purchasing refrigerant board of examiners, will be permitted to take the examination for a Class B or restricted refrigeration contractor's license, without having the prescribed experience in the refrigeration field.

Restricted Licensees Can't Buy Refrigerant Gas

An additional amendment to the refrigeration code excludes holders of a restricted license

—The changes were instigated by the city's Department of Buildings and Safety Engineering to correct what it considered to be a bad situation that had developed under the old code.

Before, department rulings had permitted a heating contractor to install air conditioning equipment if he could get a licensed refrigeration contractor to take out the necessary permit and to assume responsi-

bility for the installation and the servicing of the equipment.

In practice, this was not working out, according to Frank Drogosch, chief safety engineer for the city. Some refrigeration contractors would take out a permit for a heating contractor without ever seeing the job for which they were responsible. In other instances, heating contractors would make installations without bothering about permits.

The new rules are intended to correct these abuses, he indicated.

3 Amendments to Refrigeration Code

To accomplish this, three amendments were made in the refrigeration code.

To section 3.6 on experience required, a new sub-paragraph (b) was added, which reads as follows:

"(b) An applicant holding a Class A or B Gas and/or Oil Burner Contractor License in the City of Detroit, when recommended by the Gas and Oil Board of Examiners, shall be examined by the Refrigeration Board of Examiners for a Class B Refrigeration Contractor License or for a Restricted Refrigeration Contractor License, the choice of which will rest with the applicant."

To section 3.8 on classification and limitation, a new sub-paragraph (b) was added. It reads:

"(b) Restricted License—Limited to the installation of self-contained refrigerating systems used for air conditioning for human comfort and employing Group I refrigerants, installed only in residential, commercial, or industrial type occupancies, when actuated by motors or engines of not in excess of seven and one-half (7½) horsepower. The holder of this class license may not service any of the refrigerant containing parts of the system."

Section 4.7 was changed to read:

"Sec. 4.7. Sale and Purchase of Refrigerants. The sale or purchase of gases or liquids which are intended for use as refrigerants in the City of De-

troit shall not be made other than to or by the following: distributors, jobbers, manufacturers, holders of Class 'A', 'B', or 'C' Refrigeration Contractor Licenses and then only those refrigerants specified on their licenses, or persons having a permit from the Department."

'Design Unit' Defined In Gas, Oil Burner Code

Two of the amendments to the gas and oil burner code define for the first time what is meant by a "design unit." They read:

"Section. 1.19 Gas Fired Design Heating Unit. A space heating furnace, boiler, unit heater, room heater, recessed heater, duct furnace, or other such device designed, built, and approved as a unit for gas firing.

"Sec. 1.20 Oil Fired Design Unit. A space heating, steam generating, or water heating boiler, or space heating furnace, unit heater, room heater, recessed heater, duct furnace, or other such device designed, built, and approved as a unit for oil firing."

Section 3.9 on classification and limitation was changed to include the new restricted licenses. These sub-paragraphs read as follows:

"(2) Restricted Gas. The installation only of gas-fired design heating units limited to input ratings not exceeding 300,000 B.t.u. per hour, per unit.

"(5) Restricted Oil. The installation only of oil-fired design units and equipment limited to designs for use with Nos. 1, 2, or 3 distillates, as defined in the U. S. Department of Commerce, Commercial Standard CS 12-40, having a maximum fire rate of 3 gallons per hour."

The amendments were thrashed out last summer by a study committee representing all elements of the industry. Unanimous approval was gained only after two long sessions during which local refrigeration contractors expressed opposition to the very end.

Reports of these sessions appeared in the May 21 and July 30 issues of the NEWS.

PROTECT against Line Disturbances



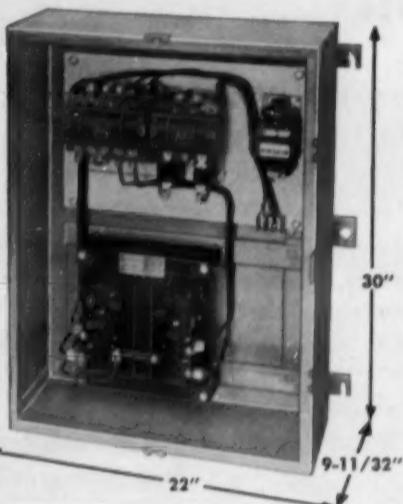
REDUCED VOLTAGE STARTERS

SATISFY
POWER COMPANY
REQUIREMENTS

TYPE "TRA" AUTO-TRANSFORMER STARTER FOR GREATEST POSSIBLE STARTING TORQUE

FEATURING: Advanced design, lighter, more compact with straight-thru wiring. Rugged auto-transformer with taps easily adjustable for desired voltage. Adjustable accelerating pneumatic relay. A-H bi-metallic thermal overload relays.

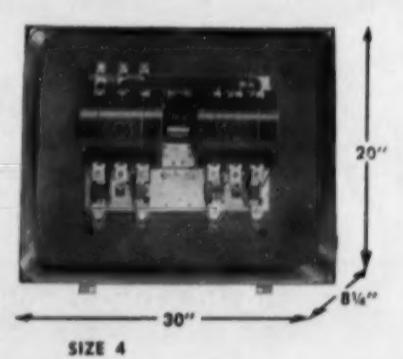
AVAILABLE: In NEMA Sizes 0 to 5, from 5 to 200 hp. NEMA I (General Purpose) or NEMA XII (Industrial) Enclosure.



TYPE "IRA" INCREMENT STARTER FOR PART WINDING SQUIRREL CAGE MOTORS

Reduce current inrush on light or low-inertia starting loads by 2-step method... second winding energized after an adjustable time lag.

AVAILABLE: In NEMA Sizes 1 to 5, up to 400 hp at 440/550 volts. NEMA I or NEMA XII Enclosure.



These A-H Starters provide automatic operation with either 3-wire control or 2-wire thermostat control systems. Supplied with 3 poles for polyphase service, 4 poles for 4-wire service.

USE THIS COUPON TO SEND FOR COMPLETE INFORMATION



Quality
MOTOR CONTROLS
WIRING DEVICES
ENCLOSED SWITCHES
APPLIANCE SWITCHES

INDUSTRIAL CONTROL DIVISION
THE ARROW-HART & HEGEMAN ELECTRIC CO.
103 HAWTHORN STREET, HARTFORD 6, CONNECTICUT

Please send me information covering:

A-H Reduced Voltage Starters.
 The complete line of A-H Heating, Ventilating and Air Conditioning Controls.
 Others _____

ACR

name _____
position _____
company _____
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city _____ zone _____ state _____

FREE

yourself of time-consuming efforts on small air conditioning jobs. Be a manufacturer's representative for the fastest growing portion of the air conditioning market—usAIRco's self-contained central station air conditioner (RK). RK's, in capacities to 60 tons, are now in use by hundreds of top firms such as Ebo Manufacturing Co., Sears, TWA, Howard Johnson restaurants, National Food stores, and International Latex. An aggressive promotion policy to the trade and consumer backs your sales efforts. Write today giving a brief resume of your background to Robert P. Kelley, sales manager, United States Air Conditioning Corporation, 7900 Tabor Road, Philadelphia 11, Pennsylvania. An interview will be arranged, if we do not have representation in your area.



H. W. SCHAEFER



L. F. HARDY

Philco Appoints Schaefer, Hardy

PHILADELPHIA — Appointment of Harold W. Schaefer as vice president and general manager of Philco Corp.'s Appliance Div. was announced recently by James M. Skinner, Jr., president.

Schaefer, who has been a vice president of the division since 1952, succeeds Raymond A. Rich, resigned.

At the same time, Skinner announced that Larry F. Hardy, a corporation vice president, has assumed a new position as vice president in charge of Consumer Products Divs. In this capacity, Hardy will have general responsibility for the operations of the Television, Radio, Appliance, and Automotive Divs. of Philco.

Hardy, who joined Philco in 1932, is well-known in the electronics and appliance industries for his broad experience in both sales and operations. He has held executive positions of increasing responsibility in all phases of Philco activities and is presently a member of the board of directors of the Radio-Electronics-Television Manufacturers Association.

After joining Philco, Hardy represented the company in Chicago and the Northwest Div. He later was named vice president and general manager of Simplex Radio Co., a Philco subsidiary, and in 1939, came to Philco headquarters in Philadelphia as manager of small radio sets and then as manager of the entire Home Radio Div.

In 1944, he was elected vice president in charge of the Television & Radio Div. and in 1946 was elected to Philco's board of directors. In 1954, he was named vice president in charge of product development.

Schaefer joined Philco in 1950 and, as vice president in charge of engineering for the Appliance Div., directed the engineering of many of Philco's achievements.

Before joining Philco, he was associated with several major companies in the television and appliance industries. More recently, Schaefer was placed in charge of all operating departments of the Appliance Div. with responsibility for the production of refrigerators, freezers, electric ranges, air conditioners, and home laundry units.

MARSH Instruments

THE SERVICEMAN LINE of Testing Gauges, Testing Thermometers, Timers, etc.

PRESSURE GAUGES and Dial Thermometers for all services.

MARSH-ELECTRIMATIC, Water Regulating Valves, Solenoid Valves.

MARSH INSTRUMENT COMPANY
Sales Affiliate of Jas. P. Marsh Corporation
Dept. D, Skokie, Ill.

Dealers Sell 70% of G-E Wall Refrigerator-Freezers

LOUISVILLE, Ky.—Approximately 70% of 1,050 customers who purchased General Electric wall refrigerator-freezers bought them from dealers, a survey conducted by the General Electric Co. reports.

More than 35% of the units went into existing homes and 41.3% into new homes. Builders sold only 29.8% of the units.

The survey revealed that

50.7% of the buyers had incomes of less than \$10,000. It showed that 21.7% had incomes between \$10,000 and \$15,000 and 27.6% had incomes of \$15,000 or more.

Only 10.4% of the buyers said that their purchase was included in the home mortgage. Some 40.5% paid less than \$600 for their wall refrigerator-freezers.

The survey revealed that

comes of less than \$10,000. It 14.7% paid between \$600 and \$650, 29.6% paid between \$650 and \$700, 12.2% paid between \$700 and \$750, and 3% paid between \$750 and \$850.

Dealers installed 31.2% of the units, private contractors put in 26.9%, and builder 23.5%. Some 40.5% paid less than \$600 for their wall refrigerator-freezers.

Forty per cent of the wall re-

frigerators replaced refrigerators from one to five years old and 35.2% replaced boxes between five and 10 years old. Others accounted for 24.8% of the sales.

Style and design were cited by 45.4% of the purchasers as a prime influence in the purchase.

Space saving was mentioned by 43.5%, convenience by 42.1% and 11% gave other considerations.

COLOR REFRIGERATOR SHELVES and EVAPORATORS OF STEEL



► Thanks to recent Houdaille developments, steel freezer shelves and evaporators can now be produced in almost any modern color. Electro zinc plating, plus two electrostatically deteared and baked coats of a new DuPont Epoxy, result in a wonderfully smooth finish... so hard and so chip and scratch-proof it's practically indestructible. It has passed tests for breakdown and corrosion many times more severe than those specified for acceptable commercial standards. It's supremely chemical and acid-resistant.

With Houdaille's new processing facilities, it's an economical finish, too. That means you can now feature the strength of steel... and the numerous other advantages and interior cleanliness of Houdaille's copper-brazed, tube on plate or plate on plate construction... without cost penalty. Our modern engineering, research and test facilities are at your service to help develop units to your specifications.

HOUDAILLE INDUSTRIES, INC. NORTH CHICAGO DIVISION

1900 Fase Park Ave., North Chicago, Ill.

Manufacturers of:

Evaporators, Cabinet Cooling Plates
Freezer Shelves and Condensers

For more information about products advertised on this page use Information Center, page 20.

Inside Dope

By GEORGE F. TAUBENECK

(Concluded from Page 1, Col. 1)

In Santa Monica, Calif., Joel Noah White pleaded guilty to burglarizing a film producer's home. He escaped prison sentence—because he wore his Phi Beta Kappa key.

Judge Stanley Mosk placed White on probation, saying he was reluctant to impose jail sentence because of White's "impressive education."

Leave 'Em Smiling

In a small town everybody is interested in what the Joneses will name their latest baby. In a city residents wonder what the zoo will name its new elephant.

All you have to do to ruin a

perfect day is calculate how to be content on what he makes much of your earnings went to the Department of Infernal Revenue.

"Just why do you want this divorce, madame?"

"Every Saturday night for the last five years I've had to wash his back."

"Insufficient grounds," snapped the judge.

"Your Honor, last Saturday night his back was clean."

After electing Allen Talbot commissioner of the town cemetery, voters in Berkeley, Mass., learned that he was dead, according to Duke Hildreth of Westinghouse.

Seemingly the office sought the man.

The wise man learns how to live; the shrewd how to make money; but the man who learns

Why did you do it?"

Laugh! It's Good For You!

On a trip to Africa, a concert violinist became so enchanted by the beauty of the jungle that he improvised a concert right on the spot.

As he serenaded the scenery a hungry lion spotted him. Soon tigers, elephants, and other wild beasts—entranced by the soothing sounds—formed a ring around this musician.

Suddenly a black panther made a flying leap at the violinist and savagely devoured him.

"You unfeeling beast!" exclaimed the lion. "We'll never hear such beautiful music again!"

The panther cupped a paw to his ear. "Ehhh?" he deafened.

Presenting a parking ticket at a police station, a cute girl innocent:

"Did somebody here lose this? I found it on my windshield."

During an NBC-TV "spectacular" Stan Kenton told a nationwide audience that he and his band would tour "many foreign countries, including Europe and England."

Automation and Us

Ralph J. Cordiner, president of the General Electric Co., believes automation is the only solution for our long-range problem of full employment. He also thinks it will be a boon to labor unions, investors, and the public.

He bases his premise on the

race between our exploding population and its demands, on one hand, and declining labor hours on the other.

He thinks that in the next 10 years we will need to increase our output by 40%, with only 14% more workers available to do that tremendous job.

Either we shall have to work harder and longer or we must drastically raise the amount each one of us can produce per unit of time.

If we step up productively, personal earnings can be improved. In the General Electric Co. they have gone up from \$2,000 to a \$5,600 average in the last 15 years.

Mr. Cordiner declares that average routine paychecks "may be in the range of \$8,000 to \$9,000" 10 years from now. Increased automation will also benefit customers and the public, through better products and services at better values, and be a good thing for the investors as well.

We can hope for economic and social salvation through rapidly increasing automation, opines Mr. Cordiner. Intriguing prospect.

Golly! Gee Whiz!

Like an expanding balloon which never burst, the universe is getting bigger all the time. Its rate of expansion is fantastic—at least 38 million miles an hour. U. S. Navy research laboratory scientists so report.

Drs. A. E. Liley and E. F. McLain "tuned in" on a star in the constellation known as Cygnus. Picking up its escape of radiation energy, these scientists determined that Cygnus is moving away from our Earth at a speed of 10,560 miles a second. Thus, this theory.

An explanation offered by astronomers for this incredible expansion of our universe is that God's World started its life a long time ago in a huge explosion, and that the present expansion is a relic of that violence.

A better theory: God is limitless and inexplicable.

How To Get Rich Quickly

Competition in the real estate business is keen today. Builders are going in for sales features (like air conditioning) to sell their housing projects.

Just what are some builders doing to attract buyers? The Lewyt Air Conditioner Corp., makers of built-in wall air conditioners, put that question to project builders around the nation—and came up with interesting answers.

Here are some of the gimmicks:

Today's home buyer is being offered free wall-to-wall carpeting, a tank full of oil for heating, a puppy for the youngsters, swimming pool facilities, a full year of weekly maid service, free air conditioning, lunch with a movie star, season box seats at a major league ball park, dance lessons, Bermuda vacations and complete wardrobes to each family member.

Golly! When we bought a home it was "blood, sweat, tears and strain." Still is, matter of fact, to keep it repaired, altered, etc. Born too late!

BEST OF BLOWER ASSEMBLIES



THE LAU BLOWER COMPANY

2000 Home Avenue • DAYTON 7, OHIO

Other plants at Kitchener, Ont., Canada, and Azusa, California

Lau has joined creative engineering with precision manufacture to produce flexible, economical blower units. Our vastly improved Series "A" Blower Assemblies, for example, are the outstanding achievement in the blower field. Over-all size is smaller; many of the revolutionary features are exclusive with Lau. Econo-Pak®, providing all standard Series "A" features in a basic unit quickly and easily adaptable to many needs, permits your inventory to be cut as much as 50%. Now, Econo-Pak® is also packaged in a pallet of 24, with bulk packaging of hardware, to effect new economies and simplicity of assembly. Over-all width of 9" and 10" Econo-Pak® reduced, too, by improved bearing bracket design, permitting a shorter shaft. As the year progresses, Econo-Pak® will be equipped with new Lau Preslok® Wheel, an important improvement here as well as in complete assembly.



WORLD'S LARGEST MANUFACTURERS OF AIR-CONDITIONING BLOWERS

McCall Plans To Take Part In 5 Fall Trade Shows

HUDSON, N. Y.—McCall Refrigerator Corp. has announced that it will hold demonstrations and exhibit its line of reach-in refrigerators and upright freezers at five trade shows this fall.

The company said it will emphasize "modern food service conveniences to reduce labor time in food preparation."

At McCall's booth will be a "Food Service Equipment Information Center" conducted by a well-known architect who will "give unbiased answers to questions relating to planning a kitchen for mass feeding institutions."

The shows on McCall's fall schedule are:

American Dietetic Association annual convention, Auditorium Arena, Milwaukee, Oct. 9-12; American School Food Service annual convention, Palmer House, Chicago, Oct. 21-26; Louisiana State Restaurant Show, Hotel Jung, New Orleans, Nov. 6-8; Virginia State Restaurant Association annual convention, Jefferson hotel, Richmond, Nov. 6-8; 41st National Hotel Exposition, New York Coliseum, New York City, Nov. 12-16.

Vending Machines To Serve Plaza Shoppers 'Round-the-Clock

WEST ORANGE, N. J.—Banks of vending machines, including refrigerating units, will be installed at the Essex Green Shopping Plaza under construction here to provide around-the-clock service for shoppers.

Refrigerated vending machines will dispense eggs, butter, milk, cheese, and soft drinks. Other vendors will be stocked with such items as coffee, tea, bread, cake, and breakfast foods. Late shoppers will also be able to purchase cigarettes, cigars, soap, toothpaste, and detergents from vending units when Plaza stores are closed.

Wolfe-Evans Will Represent Larkin In Southern States

ATLANTA—Larkin Coils, Inc. has appointed Wolfe-Evans Co., New Orleans, as sales representative for Louisiana, Mississippi, Arkansas, and parts of Texas, including Houston and the southeastern area.

O. M. Sims, president of Larkin Coils, announced the appointment.

The two principals in Wolfe-Evans are Rudy Wolfe and Walter Evans.

Wolfe was previously associated with Mueller Brass Co. Walter Evans was formerly associated with Standard Brass Mfg. Co. of New Orleans, and has been in the manufacturing representative business for the past few years.

To Cool Union Hall

LOUISVILLE, Ky.—Truck Drivers Local 89 has announced plans for a new air conditioned headquarters building to cost \$250,000 to \$300,000.

2 Sweden Freezers Included In U.S. International Exhibit

SEATTLE—The Sweden Freezer Mfg. Co. of Seattle, Wash., recently shipped out two soft ice cream dispensers to Saloniaka, Greece to be part of the United States exhibit in the International Trade Fair there Sept 2 to 23, Harvey F. Swenson, president, has announced.

The Seattle firm is one of a number invited to send representatives and equipment for the American exhibit under the sponsorship of the Departments of Agriculture and Commerce, and the United States Information Service.

Swenson has designated Charles L. Burton export sales manager, to represent the company at the fair. Burton has been with the Seattle firm since

1946. He also is sales manager of Sweden Freezer of Canada, Ltd.

In addition to his stay in Saloniaka, Burton plans business calls in Athens, and in Italy, Switzerland, Iceland, and France.

Present plans call for the machines to be put in operation at the fair so that free samples of American made milk shakes and soft ice cream can be given away to those in attendance.

Ansul Buys Building To Expand Facilities

MARINETTE, Wis.—To relieve the need for additional manufacturing and office facilities, Ansul Chemical Co. has purchased the building of the Marinette Glove Co. here.

Ansul will decide soon which departments or operations will be moved to the new building, which will add another 11,000 sq. ft. of floor space to plant facilities.

Wholesale Grocer Group Studies Plan To Aid Independent Supermarket Growth

WHITE SULPHUR SPRINGS, W. Va.—Immediate study of a long-range plan designed to facilitate expansion of independent supermarkets was authorized at the recent mid-year meeting of the National-American Wholesale Grocers' Association.

Under the plan, as outlined at the meeting, a company tentatively called the Independent Supermarket Development Corp. would be developed by the association. However, when formed, the firm would operate independently of the NAWGA. It would be financed by members desiring to participate.

One advantage of the company would be that through its support, independents would get better recognition from develop-

ers of prime-location shopping centers and from financial institutions, it was stated.

It was also pointed out that retailer customers of wholesalers belonging to the company would have the capital of the corporation behind them, thus providing additional security to leases beyond that offered by the retailer and his wholesaler.

Additional benefits would be facility of rediscounting retailers' notes on equipment and other obligations involved in expansion, and allowing the individual wholesaler to offer financial cooperation without adding to contingent liabilities.

R. L. Montgomery, Jr., NAWGA president, plans to appoint a committee to study the program.



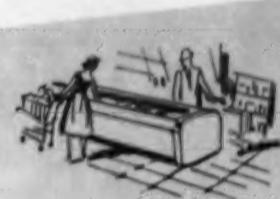
Warren Refrigerators

OUT FRONT for merchandising perishables

Only a seventy-five-year record could inspire the good looks and unequalled merchandising

qualities of every model in this sensational Warren Diamond Jubilee Series.

For each perishable department, a SUPER MERCHANDISER of all-new superiority: handsome styling all its own, with scientifically chosen dimensions for maximum capacity and more display, plus complete satisfaction from economical performance.



The ISLAND MASTER MERCHANDISER stresses two-side shopping of seven frozen-food packs across. Remarkably efficient performance around the clock.

COLORAMICS®

Acid-Resistant Porcelain in Sales-Stimulating Colors

Three refrigerated dairy decks and a fourth for dry displays. An amazing cubic-capacity advantage over similar competitive styles!



905 Memorial Drive, Southeast, Atlanta 1, Georgia

Bucketed Beer Bottles

Ice Machine Dealer Shows Restaurants, Groceries How To Use More Ice for Added Customer Appeal and Profit

MIAMI, Fla.—David Golden, vice president and sales manager of Gray Products Corp. here, makes money selling ice machines to prospects who did not even know they were prospects.

Take small restaurants and bars, for instance. The proprietors and other ice maker salesmen may think that they would

Bucket Idea

But Golden and his three salesmen don't take this for an answer. They show the man how he can use more ice to his profit.

An example of this is Golden's ice bucket idea. For the restau-

not use enough ice to make a restaurant or bar that serves beer machine of their own worth with meals, Golden suggests that when the customer orders beer, the waitress not bring him a bottle and a glass.

Instead, she should bring him three or four bottles, nested in an attractive bucket filled with crushed ice. Then after she uncaps a bottle and pours a glass full, she puts the bottle back in



EXPLAINING ICE BUCKET idea that helps him sell ice cubers to visitors at Pan American Restaurant Exposition is David Golden (facing camera), vice president and sales manager of Gray Products Corp., Miami.

the ice bucket, he explained.

"Even if the beer has been pre-chilled to 42° F. and the glass pre-chilled," Golden asserts, "the beer will lose 3° F. temperature when it is poured into the glass. Within 15 minutes, it will be at room temperature.

"On the other hand, when the bottle is kept in the ice bucket, it will always be cool. The customer will enjoy his drink more and will be tempted to order another."

And that is where the ice bucket pays dividends. After the waitress pours the first glass, she leaves a bottle opener on the table.

When the customer decides he wants another beer, he does not have to semaphore the waitress and wait several minutes to be served. Instead, he merely selects another bottle from the ice bucket and uncaps it himself.

"This not only provides better service for the customer, it also saves the waitress' time, particularly during rush hour periods," Golden explains.

When the customer calls for his check, the waitress merely notes the number of bottles used and bills accordingly.

Ice for Produce Displays

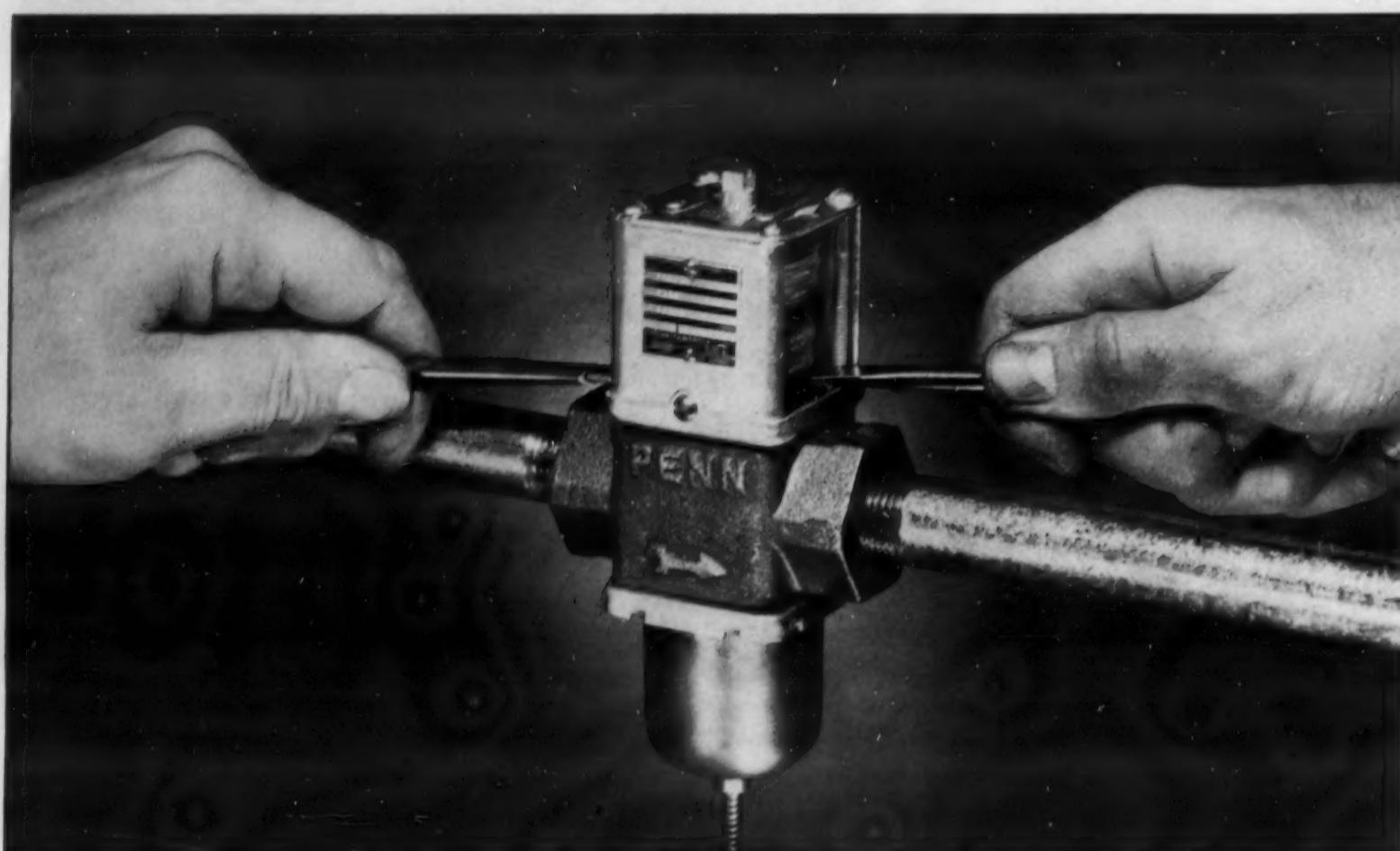
Another source of cuber sales for Golden has been small produce markets. He convinces the grocers that it will pay them to make their own ice for their produce displays.

He not only tells them about it, but shows them how to put the ice in the best position to get the maximum refrigeration without deteriorating the produce.

"We did not originate this idea," Golden admits. "We learned it from the experts."

He explained that his company which distributes Tyler commercial refrigeration equipment as well as "Scotsman" cubers subscribes to all the leading

(Concluded on next page)

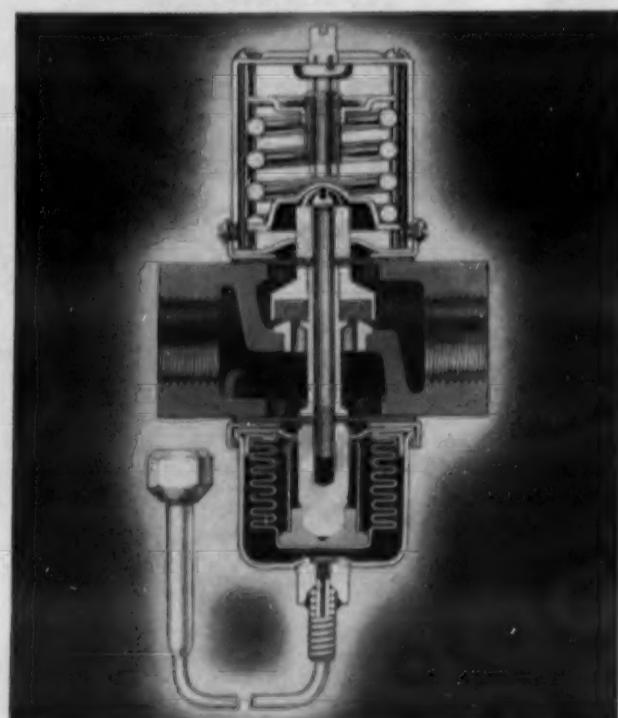


SEE HOW EASY IT IS TO FLUSH PENN WATER VALVES

2 screw drivers, a flip of the wrists—and PENN is ready for long, trouble-free service

Only Penn water valves offer such easy manual flushing! And, you know how important it is to flush out any newly-installed water valve. With Penn, all you do is insert two screw driver blades under the range spring and lift up. All the pipe cuttings, solder balls, rocks and other foreign material that normally get into the water lines during installation are washed away. Easy-to-flush, Penn eliminates those costly service call-backs due to improper valve seating.

That's just part of the story. Penn water valves are highly sensitive to changes in refrigerant head pressures, assuring top efficiency. There's no valve chatter, no water hammer, no rusting of range spring, no corrosion of sliding parts. Sizes from $\frac{3}{8}$ " to $2\frac{1}{2}$ " in flanged or threaded styles—and also available for temperature actuated service. Ask your wholesaler.



Cutaway view shows how 2 nylon-reinforced synthetic diaphragms in Penn water valves keep water away from the bellows, range spring and sliding parts. Penn puts an end to rust, corrosion and sedimentation, the deadly enemies of ordinary water valves.

PENN CONTROLS, INC. Goshen, Indiana

AUTOMATIC CONTROLS FOR HEATING, REFRIGERATION, AIR CONDITIONING, GAS APPLIANCES, PUMPS, AIR COMPRESSORS, ENGINES





A CORAL GABLES "FRUIT-OLOGIST" sprinkles ice chips on his produce display. Small retailers like this, who might not be considered prospects for ice makers, buy them from Gray Products Co. when they are shown how they can be used profitably.



SCOOPING CHIPS from his Scotsman ice maker, the "Fruitologist" gets all the ice he wants for less than \$1.75 per day. He not only uses it to ice his displays, but gives bags of cubes to his customers as an extra service.

If This Dealer Gives a Discount, It Goes To Charity Not His Customer

(Concluded from preceding page) continues in business year after year and gives good service," he said.

At sales meetings, these articles are discussed. The salesmen work out ways they can adapt the information to their use.

Salesmen Become Experts In Customers' Fields

"The whole purpose of our sales meetings are to make our men experts in the fields to which they sell," he asserted. "Our men can not only recognize all the different cuts of meat at a glance, but they have learned where and how each cut should be placed for faster sales.

"This knowledge is at the beck and call of every merchant we deal with—if he wants it. If he shows the least interest in learning more about his own business, we will teach him all we can. But we can't make him use it if he doesn't want to."

Working the highly competitive Miami territory, Golden asserts that he does not try to compete on a price basis. Rather, his salesmen stress the services Gray Products can offer, its reputation in the trade, and its experience in the field.

"We get our sales among merchants who appreciate the value of a reputable firm that con-

"We lose some sales to the a fly-by-night dealer and then fly-by-nights—and there are found him gone when they many here—who are in business wanted service."

"But many of these sales are not really lost. Some merchants learn the value of good service behind a product after they have purchased at a low price from

Golden uses three sales plans in selling his equipment. One is for cash—without any discount. If the customer insists, Golden may offer to make a contribution to a hospital or other philan-

thropic institution to close a sale, but will give no discount.

Second plan is one-third down and three months on the balance with no interest charged.

Third plan is no down payment and two years to pay on the meter plan.

"Our salesmen have a terrific profit story to tell. They also have great faith in the equipment they sell. By selling the best and transmitting this faith to the customer, they don't have to make concessions."

Golden noted that he does not take trade-ins. He urges the customer to dispose of his equipment on his own.

Gray Products has three servicemen, primarily on cuber service. When a customer calls in for service, he is assured that a man will be there within two hours.

"It is rare that a customer has to wait two hours for service," he said.

CONVERT from Self-Contained to Remote IN MINUTES!

ONE *Tecumseh* UNIT DOES DOUBLE DUTY



Model G50H-1/2 H.P.

Air Cooled Kit

Model RG50H-1/2 H.P.

TECUMSEH self-contained unit

represents new conventional line
of air and water cooled units

TECUMSEH remote kit

for quick, easy conversion of self-
contained units into remote units

TECUMSEH remote unit

equals a self-contained unit
plus a remote kit

Tecumseh's new conventional line has more sales and performance features than ever before. First, you have a choice of $\frac{1}{2}$, $\frac{3}{4}$ and 1 H.P. units, either air or water cooled. Second, you get the weight and price advantage of self-contained units. Third, you can easily remote any of these units with a new and exclusive remote kit.

Tecumseh designed this line so you can cover a variety of commercial applications at a considerable savings in cost, inventory and shipping.

Tecumseh's new Remote Kits allow one man to remote a self-contained unit in minutes, on-the-job. Two compact, lightweight kits fit all air or water cooled models. The air cooled kit contains two cast iron back legs—one cast iron front panel and name-plate—one stamped steel belt guard and mounting bracket—one control box and mounting bracket—and all necessary fasteners. The water cooled kit includes the back legs, the front panel and name-plate, plus the fasteners.

Note that the Tecumseh Remote Condensing Unit is built up from a standard Self-Contained Unit, plus Tecumseh's Remote Kit. Consider the cost, space and paperwork you save and at the same time, stock a complete line of air or water cooled units. Investigate selling features such as built-in low side oil separators on all units from $\frac{3}{4}$ to 3 HP included in this practical, economical line. Here are savings that mean more profitable sales!



The World's Largest Producer of
Compressors for the Refrigeration Industry

TECUMSEH PRODUCTS CO.

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Marion, Ohio
Tecumseh, Michigan

For more information about products advertised on this page use Information Center, page 20.

No Revenue Loss or Interference as Firm Air Conditions 7 Floors of Hotel Rooms In 90 Days at Hour-per-Room

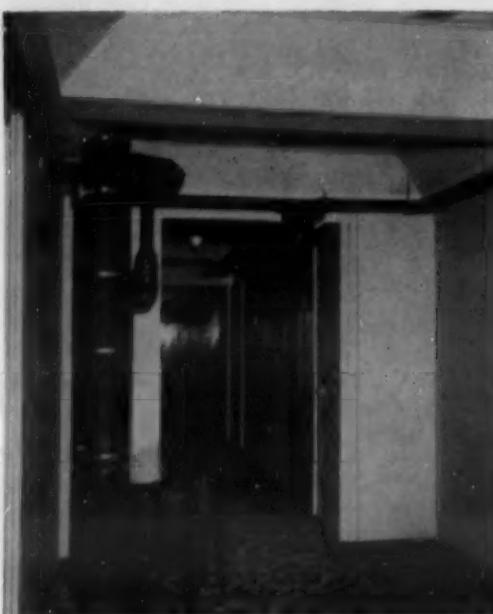
By C. Dale Mericle

NEW YORK CITY—Two major problems normally associated with air conditioning an existing hotel—space for the equipment and minimum interference with guests—were neatly solved when Thermair Industries, Inc., engineering and contracting firm here, installed cooling this summer for guest rooms through the 10th floor in the nearby Hotel Lexington.

Hotel Rented Rooms Every Night During Job

At no time during the installation was the hotel forced to give up any guest room, even overnight.

Thus the process of adding air conditioning did not involve any loss of revenue for the



REPLACEMENT CONTROLS

CHILLED water lines are located in corridors of the Lexington, connected to risers beside elevator shafts. Corridor installation minimized interruption of hotel routine.



ONLY an hour was required to install and connect air-handling unit in a guest room of Hotel Lexington. Thus there was no interference with guests, and the hotel did not lose revenue from any room during installation.

hotel, it was disclosed.

And the whole job took only 90 days.

Actual work of installation performed in the guest rooms of the Lexington required an hour per room at the most, according to Frank J. D'Anna, chief engineer of Thermair.

"It took half an hour to hang the fan-coil unit in each room, and another half hour to connect the piping between the unit and headers in the corridor.

Installation Did Not Disturb Guests

"After 10 a.m., as a rule, the guests are out of their rooms, so installing the system did not disturb them," D'Anna said.

This is confirmed by Fred F. Holsten, vice president and manager of the Lexington, who comments, "we rented the rooms and kept right on going during the installation."

Most of the public rooms, restaurants, etc., in the Lexington had already been air conditioned before Thermair made the installation for seven floors of guest rooms. Ultimately, Holsten disclosed, all guest rooms on the remaining floors of the hotel will be air conditioned, too.

Remove Ammonia System For Package Chiller Space

Space for the 160-ton Airtemp package water chiller which serves the fan-coil units in the guest rooms was created in the basement area of the hotel by removing an old ammonia system which formerly provided refrigeration for kitchen needs and ice making.

Nearly 20 direct expansion systems were substituted for the

(Concluded on next page)



Ranco Speed-Up Orders Filled Promptly

An impatient customer. A hot job. A control seldom found. Your Ranco Wholesaler can help you in a hurry. Ranco's unique Speed-Up Factory Order Service enables him to give you the fastest delivery in the

industry on the finest controls in the world.

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Ranco's line of replacement controls for nearly 5,000 distinct applications far exceeds that of any other manufacturer. And additional models are constantly being added to that line. Each control is listed—by specific application—in the Ranco Replacement Reference (No. 1544) on sale

at your Ranco Wholesaler's (Not available from factory). Why not take advantage of Ranco's superior service now? Use your Ranco Replacement Reference to choose the quality Ranco Control that's designed for the job. Depend on your Ranco Wholesaler to get you the right control when you need it.



Ranco Inc.

COLUMBUS 1, OHIO

World's Largest Manufacturer of Refrigeration Controls

For more information about products advertised on this page use Information Center, page 20.

INCREASE
COOLING TOWER
EFFICIENCY
WITH
ASPIR-JET

Aspir-Jet, the new spray nozzle, increases efficiency of cooling towers by increasing water break-up and improving water distribution. This is accomplished by the Aspir-Jet unique design which atomizes the water with as little as one-half pound nozzle pressure. Formed of butyrate plastic, Aspir-Jets last longer because they do not corrode. Thousands already in use are giving better cooling even with lower than normal pressures.

Available through Refrigeration and Air Conditioning Wholesalers.

Manufacturers & Refrigeration Wholesalers: If you are not now using or stocking this outstanding new product, wire or write

THERMAL AGENCY
National Sales Agents
1515 DALLAS • HOUSTON, TEXAS

Hotel Cooling --

(Concluded from preceding page) ammonia hookup which had been handling kitchen walk-in boxes, reach-ins, etc., and Carrier and Frigidaire ice-makers were installed to replace the ammonia ice-making equipment.

These changes were made first, and the removal of the big, old ammonia plant left a machinery room quite adequate for the water chiller system.

In each of the air conditioned guest rooms a 1/2-ton International air handling unit is suspended from the ceiling of the vestibule. Each unit is equipped with a permanent type filter and a centrifugal fan driven by a three-speed motor.

Guest Can Vary Cooling To Suit Selves

A wall switch providing three speeds and "off" controls the blower, and thus guests can vary the amount of cooling.

Although the units are exposed at the vestibule ceiling, they are painted the same color as the walls and ceiling and thus are inconspicuous. Decision to locate them in the vestibule rather than conceal them in closets, D'Anna explains, was based chiefly on the fact that much less installation time would be required for this location.

Chilled water supply and return lines and a condensate line run from each unit to the system piping in the corridor. Corridor ceilings are to be furred down to conceal the piping.

Piping Set at Hall Ceilings

Piping for each floor is located at the ceiling in the corridors—another feature that minimized interference with guests during installation. A "reverse return" hookup is used for the chilled water supply and return piping. This hookup is so designed that there is the same length of piping run on each floor. As a result, friction losses are the same throughout the system, and each air handling unit receives the same amount of chilled water. Balancing of the system is likewise simplified by this.

Chiller Risers Run Up Next to Elevator Shafts

Risers from the Airtemp chiller in the hotel basement are run up beside elevator shafts, drilling through 8-in. thick floor concrete.

To complete the installation a Lillie-Hoffman cooling tower was installed on the roof of a three-story inner court section.



C. A. COMSTOCK



L. BROSELL

Typhoon Names Brosell West Coast Sales Chief, Comstock In Florida Area

BROOKLYN—Les Brosell has been appointed West Coast district manager for Typhoon Air Conditioning Co., Div. of Hupp Corp., and C. A. "Pete" Comstock has been named district sales manager for Florida and the southern half of Georgia, according to Mark E. Mooney, vice president in charge of sales.

Making his headquarters in air conditioning sales activities.

Los Angeles, Brosell will cover the California, Arizona, and Nevada territories.

A veteran of 12 years in the air conditioning and heating fields, Brosell was formerly associated with Chrysler Airtemp as district manager and assistant regional manager of the West Coast regions. Prior to his last assignment, he was merchandise manager with Rudy Furnace Co. for six years.

Comstock will supervise the Typhoon dealer organization formerly managed by Harry Jobes, now general manager of Typhoon Heat Pump Co. of Tampa, Fla.

Comstock had extensive experience in the heating and air conditioning field during his assignments as manager with Crane Co. from 1947 to 1952, organizing dealers both in engineering and sales. He was directly responsible for heating and

Coleman Forms Pittsburgh Mechanical Contracting Co.

PITTSBURGH — James L. Coleman, Jr., previously an officer of Sauer, Inc., mechanical contractor of Pittsburgh, has announced the formation of a mechanical contracting firm.

At present, offices of the new company are located at 803 Standard Life building here.

Coleman has been associated with Sauer, Inc. and its predecessors since 1928, having been elected vice president and secretary and later president.

He is a registered professional engineer, director of Builders Exchange of Pittsburgh, and a member of the Pennsylvania and National Society of Professional Engineers; American Society of Heating & Air-Conditioning Engineers; and Pittsburgh and National Association of Plumbing, Heating, Ventilating & Air Conditioning Contractors.

Worthington Appoints East Texas Distributor

HOUSTON, Texas — Conditioned Air, Inc., a Houston and Dallas firm, has been appointed distributor for Worthington air conditioning products in eastern Texas, Matt Lawler, vice president in charge of the air conditioning and refrigeration division, announced recently.

Headquarters will be in Houston with offices at Clay and LaBranch Sts. When the building now under construction is completed, the Dallas offices will be at 4201 N. Carol St. at Bryan.

Edward Norwood is general manager of the firm.

"Purpose of the appointment," according to Lawler, "is to place the distribution of Worthington equipment in the hands of an organization which will handle wholesale distribution only."

Get the RIGHT COMBINATION for Peak Performance

buy

SPORLAN "G" VALVES with Selective Charges

"C" CHARGE for suction temperatures ABOVE ZERO

"Z" CHARGE for suction temperatures BELOW ZERO

"X" CHARGE for Extremely Low Temperatures

HERE'S WHY! Over 22 years of engineering research and development have gone into the "G" valve; constantly improving, but never changing the original Sporlan Peak Performance design.

And, way back in 1934, Sporlan engineers originated Selective Charges, which keep proving down thru the years that No One Charge can properly operate a valve on All Applications. So, if you haven't tried Sporlan, just ask any old-timer in the industry . . . he knows that Sporlan "G" valves with Selective Charges have always been the right combination for Peak Performance on all commercial refrigeration applications.

Try them yourself . . . order Sporlan "G" valves with Selective Charges from your Sporlan wholesaler today, and ask him for a new Sporlan Catalog showing the proper Catch-Alls and Solenoid Valves to go with them.

Better still . . . Buy Sporlan Right-Down-The-Line and get Peak Performance throughout.

SPORLAN VALVE COMPANY

7525 SUSSEX AVE., ST. LOUIS 17, MO.

AIR-CONDITIONING MOTORS NEVER BURN OUT when protected with

MIGHTY MITE MOTOR PROTECTORS

MECHANICAL INDUSTRIES PRODUCTION COMPANY

223 ASH STREET • AKRON, OHIO

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Do It
Every
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& REFRIGERATION
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F. M. COCKRELL, Founder

'The Conscience of the Industry'

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OFF THE CHEST
do our part to champion the cause of the older worker, which you have so ably done in this editorial.

C P. AUSTIN, Director
Research and Marketing

**ICE ASSOCIATION WOULD
AID OLDER WORKERS**

National Association of
Ice Industries
Washington 6, D. C.

Editor:

From time to time your very fine publication, AIR CONDITIONING & REFRIGERATION NEWS, carries stories or editorials which would be of particular interest to the members of this association—and to all businessmen, for that matter—such as your excellent editorial in the Aug. 20 issue, "Best Bargains in the Labor Market: Experienced Men Fifty Years Young."

We publish a monthly news letter which goes only to our members. It's brief, just hits the high spots, yet we try to pack it with thoughts and ideas which will help a man to become a better businessman.

With this in mind, we would very much appreciate permission to quote two or three paragraphs from this editorial, with full credit to AIR CONDITIONING & REFRIGERATION NEWS, of course. We, too, would like to

do our part to champion the cause of the older worker, which you have so ably done in this editorial.

C P. AUSTIN, Director
Research and Marketing

**ANOTHER EDITOR NOTES
AUTOMATED WRITING ITEM**

Productionwise
New York, New York

Editor:
Could we reprint in our magazine *Productionwise*, that very wonderful article you wrote on Trade Marks by Automation. This is the story of how Chas. Pfizer & Co. compiled a dictionary with the aid of IBM electronic brain and it included your interesting reflections on this development.

Full credit, of course, would be given to both your publication and yourself as its editor.

We have a special fondness for writing with humor and charm and originality, and your article abounds in all three of these ingredients.

LEO H. JOACHIM

Handy Way to Subscribe

To See the Industry In Action EVERY WEEK

Keep up-to-date on what's going on in your industry. You'll see action weekly in AIR CONDITIONING & REFRIGERATION NEWS. Covers latest news and gives you top how-to-do-it reports on commercial and residential air conditioning, commercial and home refrigeration: manufacturing, contracting, distributing, retailing, and servicing. Read the Industry's newspaper for profit every week. Only \$6.00 per year, 52 issues (U.S. and Canada). Foreign: \$10.00 per year.

AIR CONDITIONING & REFRIGERATION NEWS

9-17-56

450 W. Fort St., Detroit 26, Mich.

Gentlemen: Send the NEWS every week for one year. \$6.00 enclosed Bill me Bill Company

Name.....

Company.....

Street.....

City Zone State

2 Tied-In Systems Give Hospital Year-Round Conditioning

MASSILLON, Ohio—An installation covering the heating and cooling of all operating and delivery rooms has been made at Massillon City hospital.

The installation was accomplished with Carrier air conditioning and Iron Fireman "SelecTemp" heating equipment.

Decide on Individual Heating Control Too

It was decided, after the installation of controlled humidity and cooling equipment for summer operation, that equipment to control heating in the same manner for winter operation was needed, according to a report on the project. So individual SelecTemp units were put in each room served by the Carrier conditioning.

A 15-ton package conditioner was installed in the fourth-floor hallway, the only accessible area adjacent to the operating rooms. The supply duct was then run down the main hallway, with branches terminating in each operating room at grilles over the doorway.

Operates on 100% Outside Air

Since the system operated on 100% outside air, no problem was involved in getting return back to the equipment, it was pointed out.

Individual control of each operating room was not required since control of the system was obtained from a thermostat and humidistat, located in the main operating room.

Temper All Air for Humidity Control

Humidity control is obtained for tempering all air introduced into the system. This enables the equipment to actually be used both summer and winter, serving mainly for ventilation during the winter months.

"The installation of SelecTemp units was made after the air conditioning equipment was installed, as it was found that the existing system of cast iron radiation, as installed, could not be controlled as accurately as the SelecTemp system," the report stated.

Heating Units Fed with Low Pressure Steam

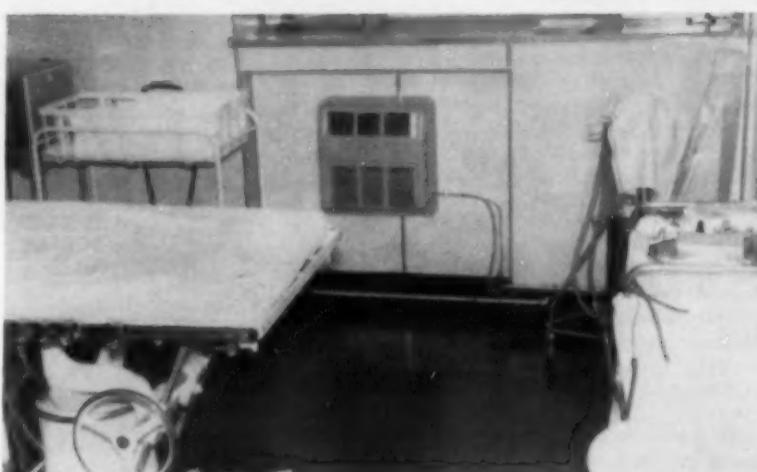
"With this system of heating, the units being fed with low pressure steam off the main steam supply through pressure reducing valves, enabled each room to control the temperature to within a few degrees of the individual thermostat setting."

Floyd Swearingen, chief engineer, together with the hospital's own crew of maintenance men, installed these units in the various locations. The details regarding locations and piping arrangements were worked out by Herbruck, Inc., Canton, Ohio engineering firm.

The same system was installed in the third floor delivery room area and part of the lying-in section. This area is served by a 5-ton package conditioner and SelecTemp units.

Hospital Facilities Not Interrupted

"The entire installation was made with no interruption in hospital facilities, which are



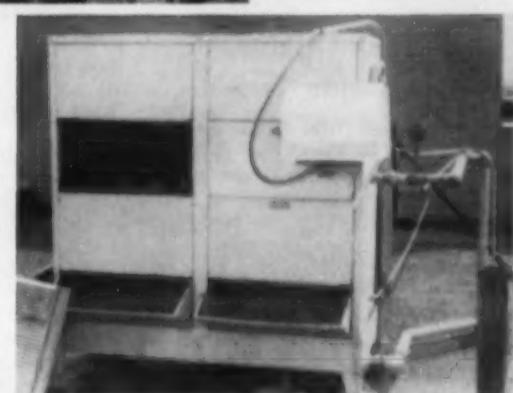
PICTURED HERE is a "SelecTemp" unit in one of the third floor delivery rooms of Massillon, Ohio, City hospital.

maintained on a 24-hour basis," held to a minimum and it was noted.

Because all equipment was installed in more or less valuable space, "the areas required were



LEFT: Supply ducts and controls of the 5-ton Carrier air conditioner are shown in the third floor delivery room installation.



RIGHT: Kennard 20-ton cooling tower on the hospital roof is connected to the condensers of the package air conditioners.

OVER 5 MILLION
Curtis prospects...
Your prospects
saw this full-color sales message
in
The Saturday Evening
POST

In a new, aggressive and continuing national advertising campaign to increase sales of Curtis equipment, this full-color sales message in the Post was driven home to more than 5 million prospective buyers of Curtis packaged air conditioning units.

If you are not a Curtis Dealer, and if you're qualified, now is the time to get started! You'll be selling the world's finest air conditioning equipment, competitively priced, and backed by a promotional-minded, on-the-go manufacturer with a solid 102 years of experience and skill.

Write today, and we'll show you how you can increase sales and profits with a complete, flexible line of Curtis Air Conditioning equipment.



MANUFACTURING CO.

Refrigeration Division
1912 Kienlen Ave., St. Louis 20, Mo.

Remember
you can count on
our 102nd year

our 102nd year

Curtis



Packaged air cooled air conditioning units



Packaged liquid chiller up to 100 tons



Industrial air compressors



Auto lifts single & two posts

CM-15

Current Literature

8-Page Brochure Describes Industrial Dust Collector

KEY NO. R-930

HAGERSTOWN, Md.—Pangborn Corp.'s new "Ventrijet" for wet collection of industrial dusts is illustrated and described in an eight-page brochure.

Bulletin 920 contains 15 drawings and photographs to show the unit's action. Dimensions, weights, and capacities are presented in three tables.

Condensed Catalog, Service Guide Issued

KEY NO. R-931

CHICAGO—Two new pieces of literature—a condensed catalog and a service guide—were published recently by McDonnell &

No. 4 in a series on refrigeration



Fig. 1
DIAGRAM A.

DIAGRAM A, above, depicts the working parts of a grasshopper of the family *Acriidae*, a beautifully engineered bug.

The natives of Yorkoyorko in New Hebrides eat grasshoppers, up, like they were pop corn, but it is the construction and design of the grasshopper that fascinate us. (We're engineers.)

The grasshopper hunches up for its hop, (Fig. 1) and when the spring is released the grasshopper has sprung. Its rear legs flick out (Fig. 2) and suddenly the grasshopper is up to 60 times its own length from where it was.

If Mr. S. E. Lauer, president of the York Div. of Borg-Warner Corp., could make a correspondingly good hop he could hop from his desk onto his horse.

Q. What enables the grasshopper to hop so efficiently while other bugs merely crawl?

A. Because he is equipped with a small working part the name of which escapes us right now, but it is a part which, in a grasshopper, corresponds to a part known as **VAPOT** in refrigeration installations. Just as that certain part enables the grasshopper to hop real good, **VAPOT** enables refrigeration installations to refrigerate real good. **VAPOT** is a defrosting device. We designed it, we manufacture it and we supply it to builders of refrigeration equipment. **VAPOT** eliminates frost and ice suddenly without detrimental temperature rise. If you build, engineer, buy or use commercial-industrial refrigeration you should get the facts of **VAPOT**. Also if your name is Welton Beckett or Paul Sessinghaus you should write for technical data on **VAPOT** which is one of many specialties used in refrigeration and air conditioning which we make.



REFRIGERATION ENGINEERING, INC.
7250 E. Slauson Ave., Los Angeles 22, Calif.
Phone: RAYmond 3-2281

Miller, Inc. here, it was noted. Manufacturers of boiler water level controls, relief valves, and related boiler safety devices, McDonnell & Miller offers the condensed catalog as the latest edition to provide concise information on the firm's products.

In its eight pages are more detailed selection information, new pump controls and relief valves, a few specialized float valves, and heating-conditioning switches.

The service guide contains trouble-shooting and service data on controls. A list of repair parts has been refined to a few standard interchangeable assemblies.

Cabinet-Type Central Unit Line Described

KEY NO. R-932

HARRISON, N. J.—A new line of central station cabinet-type air conditioning units is the subject of a new 52-page, two-color data book issued by Worthington Corp.

The data book "is designed chiefly to aid architects and engineers in selecting the correct size Worthington air units for any type installation," the company said. "The information it contains can save them valuable time and considerable expense because it eliminates complicated figuring and guesswork."

"The indexed book illustrates pictorially the various vertical and horizontal unit models available and lists their outstanding engineered design features."

For convenient working reference, the data book (bulletin #C-1100-B86 P) is divided into six sections: Product photos and specification and physical data; unit selection; sample heating and cooling problems, complete with graphs; mean effective temperature and chart; fan selection data; and dimensional drawings.

Wolverine Covers Restrictor Tubing

KEY NO. R-933

DETROIT—Wolverine Tube, Div. of Calumet & Hecla, Inc., announces the new leaflet for restrictor tubing, "Wolverine Capilator—It's Precision Controlled."

This new promotional leaflet on Capilator, the capillary tube for restriction purposes, covers the advantages of plug drawn Capilator for metering flow of liquids and gases and highlights testing and control features, and what they mean for finished products.

Anemostat Bulletins

6 New Products

KEY NO. R-934

NEW YORK CITY—A 12-page bulletin featuring new products has been issued by Anemostat Corp. of America.

Products included in the bulletin are remote manual control, a ceiling panel-diffuser, a straight-line 100% aspiration diffuser, a high capacity vane type diffuser for high sidewall installation, diffusers for ceiling mounting with center induction and radial distribution, and diffusers with air extraction in the outer cones.

The bulletin is illustrated with performance charts, photographs and drawings, with information on each product.

Janitrol Explains Home Air Conditioning Line

KEY NO. R-935

COLUMBUS, Ohio—A completely new 12-page brochure on residential central air conditioning has been published by the Janitrol Heating and Air Conditioning Div. of Surface Combustion Corp.

The brochure, entitled "The Best Years of Your Life" is a concise summary of the operation, selection, and installation of either air or water-cooled summer air conditioning.

A feature of the booklet is a section containing tips on increasing the homes "cool-ability," a check list for measuring cooling quality and suggestions on financing.

Honeywell Publishes 2 Installers' Handbooks

KEY NO. R-936

MINNEAPOLIS—Growing interest in warm air "zone" temperature control has led to publication of two new installers' handbooks by Minneapolis-Honeywell Regulator Co.

The booklet designed especially for the sheet metal worker zone theories (booklet SA2667) tells when zoning should be used. It explains in detail the installation of Minneapolis-Honeywell dampers, linkages, and damper actuators. Diagrams and photographs of actual installation procedures are also included in the 32-page handbook.

Electrical circuit diagrams, installing instructions, and checkout procedures for various zoning methods are contained in the

Air Conditioning & Refrigeration News, September 17, 1956

installer-electrician serviceman booklet (SA2820-1), it was pointed out.

In it are discussions of two-zone balancing, volume and mixed-air methods of zoning; internal circuitry and operation of Honeywell damper actuators and control panels; and a section on balancing and volume methods of controlling heating-cooling zone control systems.

Packaged Electronic Filters Cataloged

KEY NO. R-937

MCKEES ROCKS, Pa.—An eight-page catalog covering its packaged electronic air cleaners has been released by Trion, Inc. Catalog E-10 describes custom-built models in complete detail including engineering data and size and capacity tables for fitting the proper model to the job, it was stated.

Henry Itemizes Valve Parts

KEY NO. R-938

MELROSE PARK, Ill.—Complete parts catalogs covering "Henry" products have been released by the Henry Valve Co.

Parts Catalog FPL-11 consists of 32 pages of detailed cross-sections and parts, together with list prices. It covers Henry "Freon" valves and accessories, including packless and packed valves, check valves, strainers, driers, and liquid level gauges for refrigeration, air conditioning, and industrial application.

Parts Catalog APL-11 is a 24-page booklet covering Henry ammonia valves and valve accessories.

Detail Cooling Tower Selection

KEY NO. R-939

LOS ANGELES—A new method for selecting cooling towers or for determining performance under varying conditions was recently offered in catalog 32C6a on Recold "Dri-Fan" cooling towers by Refrigeration Engineering, Inc.

Charts and tables provide a graphical method for quickly selecting a tower from conditions given, or if the tower size is known, the final water conditions can be determined, the company said. Also included is a head loss chart and a B.t.u. conversion chart.

In addition, the catalog details the new automatic modulating dampers for water temperature control, it was added. The dampers provide a means of adjusting unit capacity to match compressor capacity when the system is operating at any condition from full to minimum capacity, Recold stated. A typical winter installation is illustrated.

Diagrams show construction features.

Webber Illustrates Rivet Cooler Line

KEY NO. R-9310

INDIANAPOLIS—Webber Engineering Corp. here recently released bulletin 62 on its "Sub-Zero" rivet coolers with illustrations, descriptions, specifications, and uses.

In addition, a four-page colored and illustrated brochure explains "Hot or/and Cold" temperature cabinets for industrial applications. Specifications and features are detailed in the literature.

HANSEN

QUICK-CONNECTIVE
2-WAY
SHUT-OFF
COUPLINGS!

To connect a Hansen Two-Way Shut-Off Coupling, you just pull back the sleeve and push the Plug into the Socket. To disconnect, merely pull back sleeve. No tools required. Similar valves in Socket and Plug shut off both ends of line when Coupling is disconnected—practically eliminate spilling of liquid or escape of gas at instant of disconnection.

FEMALE PIPE THREAD CONNECTIONS FROM $\frac{1}{8}$ " TO 1"

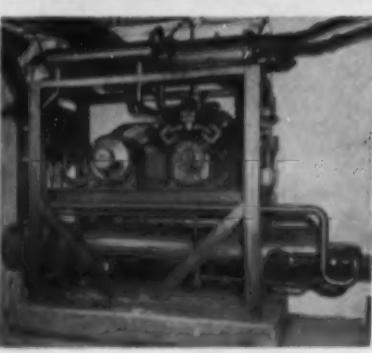
Hansen Series HK Two-Way Shut-Off Couplings are available with female pipe thread connections from $\frac{1}{8}$ " to 1" inclusive. Available in brass or steel.

Also Straight-Through and One-Way Shut-Off Couplings. Write for Catalog.

REPRESENTATIVES IN PRINCIPAL CITIES

SINCE 1915

THE HANSEN  **MANUFACTURING COMPANY**
4031 WEST 150TH STREET • CLEVELAND 11, OHIO



Schnacke THERMATROL Water Chiller Chosen for Folsom Apartments

Schnacke Thermatrol Chilled Water Unit Model CFD-15-35 is integrated with hot water boiler for summer-winter air conditioning of the Folsom Apartments, Bonville, Indiana. Thermatrol package chillers are available in sizes from 10 to 60 tons, in standard models. The "S" line offers specification design to meet any requirement, easily selected to fit the job from 10 to 120 tons.

Write for complete engineering data.

SCHNACKE, INC.

1105 Governor St.
Evansville, Ind.

For more information about products advertised on this page use Information Center, page 20.

'Modified Atmosphere' Apple Storage Bldg. Controls Temperature, Oxygen, Carbon Dioxide

APPLETON, N. Y.—Another western New York "first" has been scored by Niagara County at the sprawling, 200-acre Pomona Fruit Farm near here.

It comes with the construction of an 8,500-bushel-capacity apple storage structure using the new modified atmosphere cold storage principles. It is the only single unit of its kind in western New York.

"Apples," explained Daniel M. Dalrymple, manager, "are living organisms and even after picking continue breathing which uses up fruit sugars and deteriorates the fruit. This principle slows down the breathing almost to nil and keeps them from spoiling."

Storage Life Extended By About 2 Months

By the method, he said, the storage period of the MacIntosh variety, comprising about 60% of the state's total apple production, can be extended some two months beyond the normal cold storage period.

The new 51 by 38 by 14-ft., air-tight structure was slated for completion by Sept. 15 for this year's harvest.

What's the advantage of this?

"It gives us fresh apples to sell in the spring that will keep longer than normal on shelves for the consumer and it keeps the MacIntosh in competition for longer periods of time with other varieties," Dalrymple said.

Fruit Lasts Longer On Retailer's Shelf

Retail sellers like the setup better because the fruit lasts longer on the shelves. It has been in "suspended animation" so long, as far as metabolism is concerned, he said, that it is slow getting started again.

Also of importance is the fact that a grower doesn't have to sell his harvest if the prices during the fall "are ridiculously low." Dalrymple estimated it will cost the consumer about a dollar more a bushel to buy in the spring.

What does the process involve?

"Modified atmosphere cold storage combines three principles of fruit storage," the grower explained.

How Respiration Is Slowed Down

Normally, he said, the rate of respiration is slowed down during storage by three ways:

(1) Lowering the temperature as in ordinary cold storage at 32° F.; (2) by lowering the amount of oxygen needed for the respiration; and (3) by increasing the amount of carbon dioxide, which is a by-product of respiration.

The fruit is stored in an airtight room, the temperature is lowered to about 38°, the oxygen is kept at about 3.5% normal volume, and the carbon dioxide not more than 5%. Normal air, he said, has about 21% oxygen and .025% carbon dioxide.

Complicated machines for washing and moving the air and methods of daily gas-composi-

tion checks are provided. Cost of the structure has been prorated on a basis of about \$2.75 a bushel capacity or \$23,375 for the 8,500 bushel.

John Hall, a partner in the Pomona enterprise, has a smaller modified air unit constructed inside a conventional cold storage plant.

Principle Developed In England

"But there is no other single unit like this in these parts," Dalrymple said. He added that the principle is not new, having been developed in England.

"Apples at Ithaca have been kept experimentally up to two years using the method," he

said. English and Canadian growers have been using it for some time.

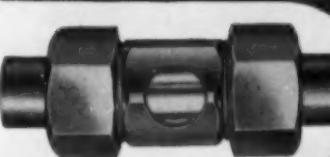
A number of modified air storages are under construction in the Champlain Valley, the Hudson Valley, New England, and Michigan.

"When these are completed, we will have a total capacity of about one million bushels," Dalrymple said, explaining that this is of nationwide economic consequence.

Penney Store To Be Cooled

LITTLE ROCK, Ark.—A three-story department store building to be constructed at Sixth and Main Sts. for occupancy by J. C. Penney Co. will be air conditioned.

NEW unit SAVES TIME on the PRODUCTION LINE



"250"

SERIES
LIQUID EYE[®]
POSITIVE SEALING INDICATORS

designed to save you
even more time and money.

- designed to eliminate possible assembly errors.
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If you have a special problem, consult with Allin engineers. Custom units can be made to your exact specifications.

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Over 1,000,000 Liquid Eyes Sold to Date!

... SO HALSTEAD & MITCHELL ENGINEERS DESIGNED

AIR-COOLED CONDENSERS FOR SIMPLER MULTIPLE CIRCUITING

Selecting circuits and manifolding when connecting several air conditioning and refrigeration units to a single remote air-cooled condenser can be expensive unless the air-cooled condenser is designed for the simplicity that means low labor costs.

That's why it's real news that Halstead & Mitchell engineers have devised a remote air-cooled condenser especially for extra-easy multi-circuiting. As costs come down, your sales go up.

The Halstead & Mitchell Air-Cooled Condenser has been designed with several *no-cost* extras like this easier multiple circuiting. Only Halstead & Mitchell offers, for instance, "Turbu-Flo"® finned surface

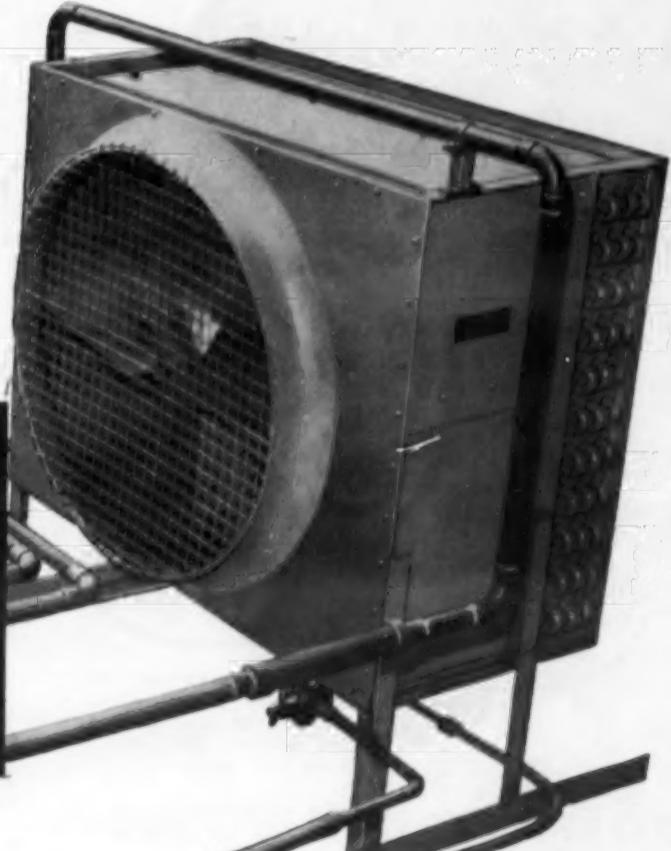
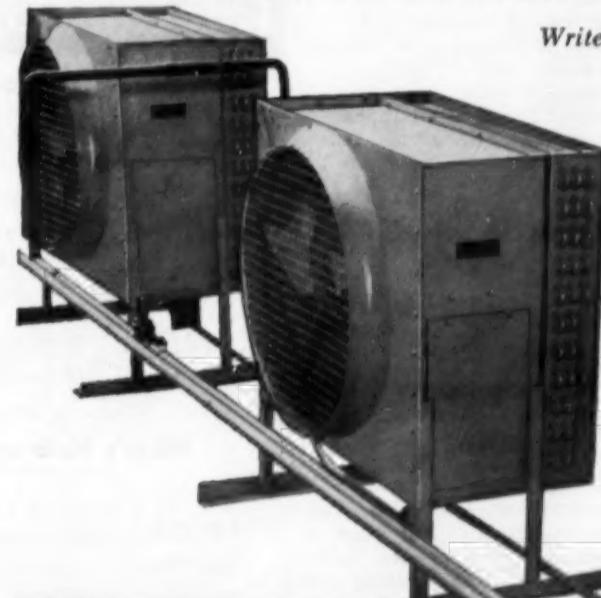
which provides added heat transfer to give you *extra-safe* capacity ratings. No need to worry when you recommend H & M.

There are extra years of working life, too, for Halstead & Mitchell's superiority in cooling tower steel protection has been used to keep air-cooled condensers free from rusting. The tubing assembly is self-reinforcing, locking out vibration before it starts.

Lifetime ball bearings and deep-pitch, slow-speed fans make for quiet operation. It's the assured operation you look for when you select Halstead & Mitchell, manufacturer of the industry's broadest line of water-saving devices for air conditioning and refrigeration.

Write for Bulletin AC-100

HALSTEAD & MITCHELL • BESSEMER BLDG. • PITTSBURGH 22, PA.



ACCO Cabinet Offers 'Picture Window' Display



KEY NO. F-930

MANITOWOC, Wis.—A specially designed lower rail with vertical lined end rails around the inset "Thermopane" insulating glass for "Picture Window" product display is featured in the new "ACCO" automatic defrost cabinet manufactured by the ACCO Div. of Manitowoc Equipment Works.

Quadruple Thermopane insulating glass (four thicknesses of glass bonded together to contain three separate spaces of dry air)

offers maximum protection against cold loss, allowing refrigeration unit to perform at peak efficiency, the company claims. A thick, removable baffle glass provides a cold barrier between the product and the Thermopane front.

The interior of the "Super View" cabinet is illuminated by fluorescent lighting and has no stationary dividers which allow displays of all various size packages and cartons. Adjustable dividers are provided to separate the various products.

Additional features include an automatic electric defrost system incorporating wiring harnesses which has all serviceable elements on a male-female plug arrangement.

The entire cabinet is serviceable from the front with the evaporator coil located above the product forming a heat trap to speed defrosting and eliminating heat shock to product.

STAND-OUT

OPPORTUNITY to profit with
ONE PRICED

INTERNATIONAL AIR
CONDITIONER COVERSmade of Firestone *Velon*

32 STYLES
TO FIT EVERY
LEADING
MAKE FROM
1/2 to 2 ton
units 1951
to 1956
MODELS

Wherever an air conditioner stands out, there is an opportunity for you to sell a cover. Profit with the FIRST, THE FINEST . . . INTERNATIONAL COVERS . . . ALL AT ONE LOW PRICE. Made of long lasting, heavier gauge Firestone Velon. Write for the facts today!

INTERNATIONAL COVERS FOR AIR CONDITIONERS CORP.
532 Broadway, New York 12, New York



Kube King, the leader in practical design, economical operation produces approx. 2,000 kubes every 24 hours . . . storage bin holds about 75 lbs. . . . uses only 5 qts. of water per freezing cycle.

CRYSTAL
CLEAN
CYLINDRICAL
KUBES
WITHOUT HOLES!

WRITE
TODAY

AVOID
SERVICE
HEADACHES

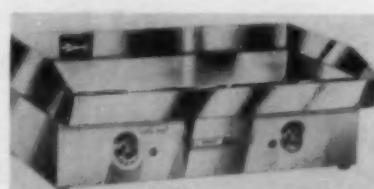
Removable stainless steel front panel, condensing unit, pulls out for quick servicing. No gadgets with modern Kube King engineering.

LA CROSSE
COOLER CO.

Factory & Gen'l. Offices:
3000 Losey Blvd., La Crosse, Wis.

Export Office: 80 Broad St., New York City. Cable: Eximport

For more information about products advertised on this page use Information Center, page 20.

Rocket 12-X' Griddle
Features High Speed

KEY NO. F-931

CHICAGO—An all stainless-steel, double grease trough companion model to Hotpoint Co.'s "Rocket 12" griddle recently was announced by the commercial equipment department.

Designated "Rocket 12-X," the new griddle features high speed and almost instant heat recovery, according to Hotpoint. With twin thermostats—each controlling half the 642-sq. in. grid area—the unit operates with full-capacity, refrigerated loads around the clock, it was stated. The 1/2-in. thick grid retains heat a long time, and helps speed recovery, it was added.

Rated capacity of the griddle is over 700 1/4-lb. hamburgers an hour, the firm claims. Its grid size is 36 by 18 in. An "Automatic Electricity Saver" turns off the current when dial-set temperatures are reached, it was noted.

'Tapaline' Detachable
Gauge Port Developed

KEY NO. F-932

N. HOLLYWOOD, Calif.—A detachable hermetic gauge port for testing, charging, or purging hermetic refrigeration systems has been developed by Mechanical Refrigeration Enterprises here.

Called "Tapaline, Jr.," the mid-size, two-part unit is multi-sized to fit tubes of 1/4, 5/16, and 3/8 in. diameters, according to the company. The master valve permanently locks a saddle member to the checking spot, then unscrews for reuse at a later date. The saddle that remains and those later installed along the line when trouble diagnosing may be purchased at considerable saving in initial unit cost.

The saddles weigh less than 1 oz. apiece. They are claimed to leave only a minor protrusion. The saddles seal at four points. A gasket is provided under the seal screw head; the needle component pierces the line to provide a self-sealant on the tube itself; a third gasket fits between tubing and saddle; and a fourth is set on the body to seal against cap.

Fedders Adds All-Steel

Square Boiler

KEY NO. F-933

MASPETH, N. Y.—A new, all-steel square boiler with flush or extended jacket, has been added to the heating division of Fedders-Quiggin Corp.

Made for both steam and hot water systems, the boiler unit is either oil or gas fired and comes in hot water rating sizes of 87,000, 108,000, 127,000, and 149,000 B.t.u.

Design features a tankless coil completely submerged in hot water in the upper part of the boiler, an 8-in. cleanout port for accessible cleaning, removable burner plates for checking chamber and burner, rear stack outlets, and fittings located for quick installation, the firm stated.

Children's Drinking Water Unit Introduced

KEY NO. F-934

GLEN RIDDLE, Pa.—"Cooler-Tot," a drinking water dispenser designed for children, has been announced by the Sunroc Corp. here.

It is an accessory unit styled like a miniature cooler that provides more drinking convenience.

Available at approximately \$50, Cooler-Tot is designed for connection to any standard water cooler

or ordinary water outlet. It is constructed to withstand the hardest use, and contains no motor or internal operating mechanism of any kind the manufacturer

stated.

The 31-in. high cabinet, furnished in grey hammertone enamel, is patterned in reduced proportions to those of standard water coolers.

The 27 1/2-in. high Cooler-Tot drain parallels the standard height drain on any regular sized cooler. Cooler-Tot is furnished, standard, for right-hand hook-up on a water cooler, with left-hand available as optional under a special order.

The cabinet is equipped with white, stainproof, vitreous china top and chrome drain plate. It is supplied with an angle-stream, splashproof bubbler, chromeplated, that operates by only slight pressure. Base is stainless steel that serves as a scuffproof kickplate for the unit.

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Sell.. REFRIG-N-FREEZ

and you'll
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FINEST

2 in 1

REFRIGERATOR
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COMBINATION

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HUDSON, WISCONSIN
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Information Center

For more information on What's New products, current literature and catalogs available, equipment advertised in AIR CONDITIONING & REFRIGERATION NEWS use Key Numbers where designated or specify products advertised and we'll see that you receive this information promptly.

Products Advertised

(list name, page, and issue date)

What's New or Current Literature Available

Key No.	Key No.
Key No.	Key No.
Key No.	Key No.
Key No.	Key No.
Key No.	Key No.

Name	Title
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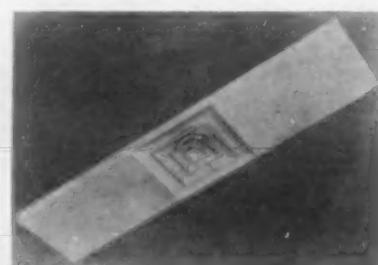
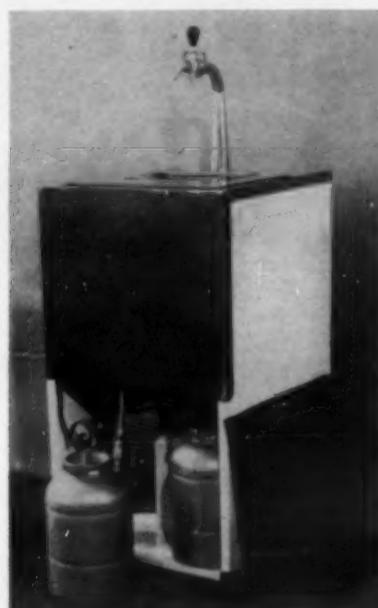
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City	Zone	State
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Type of Business	
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DETROIT 26, MICHIGAN



Diffuser Panels Fit Into Special Ceilings

KEY NO. F-936

NEW YORK CITY—A diffuser extended into a metal panel for use with "Acousti Line Pan" ceilings, "Security Panel" ceilings, or similar arrangements has been announced by Anemostat Corp. of America here.

Known as the Anemostat EP diffuser, it is designed to facilitate changes in air distribution requirements and allow the distribution system to be fully integrated with the ceiling design, the firm stated.

The diffuser, a standard square diffuser extended into a metal panel of the same dimensions as ceiling panels, can be used in an octopus distribution system, in which supply air is fed to the attenuator chamber at high velocities, and distributed at low velocities through flexible metal tubes to as many as four ceiling diffusers," the company said.

"The panel diffusers may be easily shifted without alterations of the ductwork when tenant requirements call for outlets to be relocated, added, or removed," it was noted.

Modular type EP diffusers are available in 12 in. by 24 in. or 12 in. by 48 in. panels.

Ohio Offers 'Porto-Vend' Beverage Dispenser

KEY NO. F-935

WOOSTER, Ohio—Ohio Beverage Dispenser, Inc., recently introduced here a "Porto-Vend" beverage dispenser.

Termed a "Space Saver," the compact unit is 36 in. high (adjustable to 40 in.) and is 20 in. on each side. It has heavy-duty stainless steel front and top.

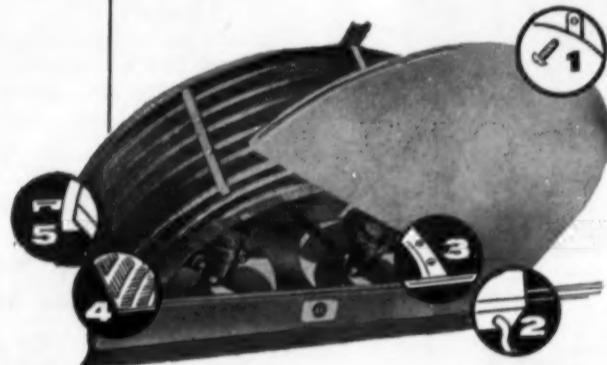
Available in one or two flavor faucets, or one flavor and two sodas, or two flavors and one soda, the "trouble-free" faucet has only one moving part, the firm stated. There is a continuous flow at 36-38° to the faucet.

The hermetic compressor builds and maintains 50 lbs. of ice in the cooling compartment of the unit. It has a 100 g.p.h. carbonator.

Twist...it's open!

SO SIMPLE TO INSTALL AND SERVICE TENNEY TW COOLERS

no permanent lines removed for servicing



- 1 All parts are at your finger tips when you remove one thumb screw.
- 2 You never need to remove the permanent refrigeration, power or water drain lines.
- 3 Machine bolts with lock nuts are used throughout construction...no sheet metal screws!
- 4 Extra large Facetized* fin coil assures maximum heat transfer.
- 5 Pre-determined spacing and slotted hangers for easy, exact installations...fans can't be blocked in installation.

Tenney's exclusive easy-to-service design saves time and effort! Modern, semi-circular shape insures maximum all-over air distribution...compact sizes add to usable work area. Load right up to unit because pan can be removed from any direction...double drain trough pitched toward connection and insulated...controlled horizontal airflow eliminates uncomfortable direct drafts.

Twin motors and fans give double protection...a single motor will maintain safe temperatures...attractive covers have rust proof baked-on finishes...filters are available for applications requiring clean air circulation...female pipe thread adapts drain connection to any line...units skillfully engineered for long, dependable service.

There's a Tenney TW unit cooler for every refrigeration job.

For complete information write for Bulletin 108-54 TODAY!

Tenney
ENGINEERING, INC.
DEPARTMENT AC-917
1090 SPRINGFIELD ROAD, UNION, N. J.
Plants: Union, N. J. and Baltimore, Md.

Pioneer Manufacturers of Refrigeration and Environmental Equipment

For more information about products advertised on this page use Information Center, page 20.

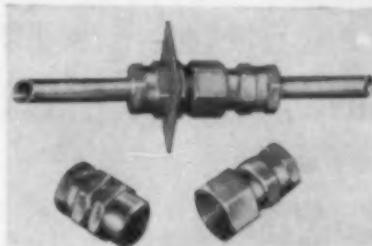
Aeroquip Develops Self-Sealing 'Freon' Coupling

KEY NO. F-937

JACKSON, Mich.—Development of a new self-sealing coupling for applications of "Freon-12" and "22" has been announced by Aeroquip Corp here.

The new coupling, series 5400, is designed for all types of "Freon" applications, and is particularly suited where there is a necessity for precharging air conditioning units with "Freon" at the factory.

By using the Aeroquip 5400 coupling, manufacturers may fill and charge units with "Freon" for



shipment to distributors with no loss of "Freon" during transit or extended periods of storage in distributors' warehouses," the company said. "At the time of installation, no further bleeding or charging of lines is necessary."

"Because of its low cost and space-saving features, the coupling is already being used for automobile air conditioning units."

"The coupling is designed for easy bulkhead installation. A jam nut locks one section of the coupling to a bulkhead."

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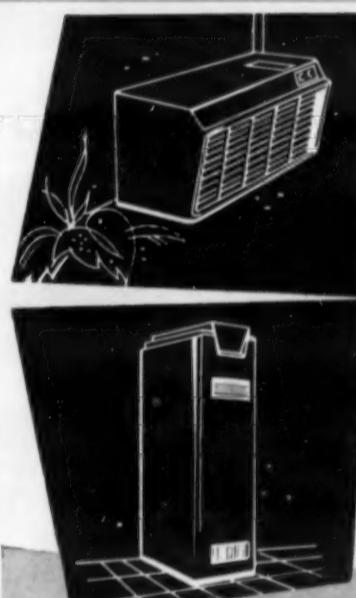
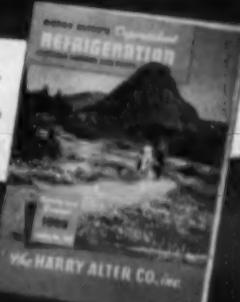
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Reflecting our 41 years of experience successfully powering many types of household appliances, these advantages result from the following features:

- UNI-SPUN* STATOR FRAME for maximum rigidity
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- AL-SPUN* ALUMINUM ROTOR CAGE for maximum conductivity
- DIE-CAST END FRAMES...sturdy, lightweight, corrosion-resistant
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- SHAFT precision ground to controlled surface finish
- MOUNTING absorbs vibration
- ADVANCED DESIGN, quality materials, and up-to-date manufacturing methods
- FINISH...moisture and abrasion-resistant

Our district engineers will be glad to demonstrate the advantages of Lamb Electric super shaded pole motors for your products.

*Reg. U. S. Pat. Off.

THE LAMB ELECTRIC COMPANY • KENT, OHIO

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SPECIAL APPLICATION
FRACTIONAL HORSEPOWER MOTORS



UNI-SPUN STATOR FRAME

Anchored laminations, ample back iron, strong pole tips mean core rigidity, better heat dissipation, quiet operation.



AL-SPUN ALUMINUM ROTOR CAGE

Heat-treated for lowest rotor losses. Integral cooling fan and vented core. Dynamically balanced.

Living and Way-of-Life

Distributor Designs Year-Round System In Own Home To Relieve Asthma Attacks

By George M. Hanning

ARLINGTON, Va.—Air conditioning is not only a living for Alexander MacLean, vice president of Wilson Supply Co., Airtemp distributor in the Washington, D. C. area, it is a personal boon.

Almost Literally Needs Conditioning To Breathe

Afflicted with asthma so that high humidity brings real suffering, MacLean almost literally needs air conditioning to breathe. He works in an air conditioned office, drives an air conditioned car, and relaxes in an air conditioned home.

But even that is not enough

for complete relief. Because much of his time is spent on the road calling on dealers, he still finds himself exposed a good deal to "raw air."

"When I get home after a humid day—and there are many here—I just flop in a chair and breathe for a while. It doesn't take long in that conditioned atmosphere to clear my head up again," he said.

50% Humidity Maintained By Self-Designed System

MacLean is particularly proud of his home air conditioning system. He says he designed it himself. Humidity stays about



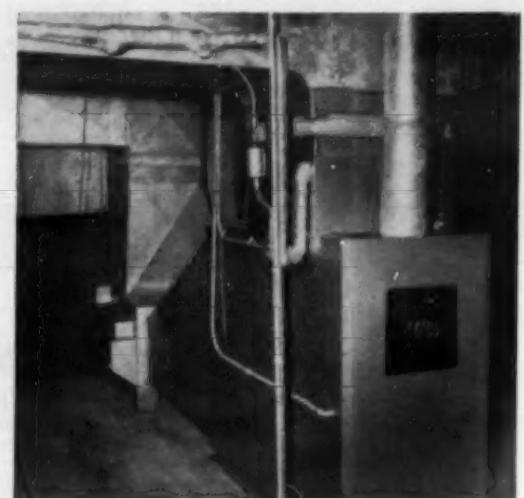
FRESH AIR THROUGH DUCT in top center mixes with recirculated air returned through closet at top right before passing through electric air filter at bottom center and then to heating and cooling unit at left.

50% and daytime temperature of area. The air conditioning never goes below 75° F. or above 80° F.

"It makes for wonderful living," he commented.

MacLean's insulated, single story home contains six rooms in a little more than 1,200 sq. ft.

system combines a 3-ton air conditioner with a 100,000 B.t.u. gas furnace, both Airtemp, of course. The cooling coil is mounted above the furnace with the condensing unit set in the back yard just behind the house.



LITTLE EXTRAS ADDED for closer control include sight glass and drier in center, heat exchanger above, and solenoid valve in liquid line.

Fresh air is brought in by duct through a basement window. The fresh air duct attaches to the return air plenum. Return air is taken from a centrally located closet, the floor of which has been removed and the door slotted.

The mixed return and fresh air then passes through an electric filter and on through the furnace and cooling coil. An extended plenum runs across the width of the house. Short round pipe runs take the conditioned air to floor or wall grilles beneath every window in the house.

No House Temperature Differential Anywhere

This system provides such even heat and cooling that there is no temperature differential anywhere in the house, MacLean said. In summer temperatures are maintained at 78 to 80° F. and in winter at 75° F. during the day and 65° F. at night. Operation is entirely automatic.

"I installed balancing dampers in the ducts," MacLean said, "but I have never had to touch them since they were originally set."

For more effective operation, MacLean had the system equipped with a heat exchanger, a "Catchall" drier with sight glass, and a solenoid valve in the liquid line to prevent flash gas.

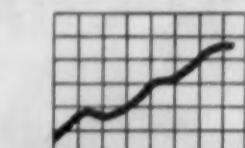
The system works like a charm, MacLean says, but adds wistfully—

"If I could only convince Mother that she shouldn't open the windows!"

Borg-Warner Names Hauck Primor Manager

CHICAGO — Borg-Warner Corp. has appointed Roy C. Hauck, manager of its Primor Products Div., manufacturer of air-cooled and water-cooled air conditioning systems.

Hauck, who will make his headquarters in Adrian, Mich., formerly was assistant manager of the Ingersoll Conditioned Air Div. in Kalamazoo, Mich., another Borg-Warner unit.



When sales go up do you "scramble" for deliveries?



Brundage stocks can save the day



STOCKS INCLUDE
UNIVERSAL BLOWERS
DUCT BLOWERS
BLOWER FILTER UNITS
EXHAUSTERS
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Blower
specialists
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Everyone runs into tight scheduling once in a while. The seasonal quality of the heating and air conditioning industry makes an occasional "hurry up" call unavoidable.

When this happens to you, Brundage is a good name to keep in mind.

New warehouse capacity—coupled with a fast order handling procedure—can help you avoid unnecessary shut-downs. And it can help you take advantage of an up-swing in business that you might otherwise be unable to handle.

MANUFACTURERS: Brundage Universal Blowers can often solve your production problems because they are a stock item and can meet most applications.

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Air Conditioning and
Refrigeration parts,
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Catalog No. 56

AIRO SUPPLY CO.

2732 N. Ashland Ave., Chicago 14, Ill.

Coleman Names Lowe Century To Give 10-Year Advertising Chief HeatExchangerWarranty

WICHITA, Kans.—Robert H. Lowe has been appointed advertising and sales promotion manager of the Coleman Co., Inc., it is announced by Carl L. Burrows, sales vice president of the firm.

He succeeds Julian F. Warren who has resigned to establish his own wholesale distributing company in Houston, Texas.

Lowe joined Coleman in January, 1955, as promotion manager of the utilities operation department.

Lowe began his career as promotion manager of General Electric Supply Corp., Pittsburgh, after graduating from Michigan State college in 1941 with a degree in Business Administration.

Wrentham Relocates Boston Warehouse

BOSTON — Wrentham Co., manufacturers' representative and warehousing agent, will relocate in a 40,000-sq. ft. building on Massachusetts Ave. at Southampton St. about Sept. 1, it was announced here recently.

Serving plumbing, heating, hardware, industrial supply, and electrical wholesalers, the Wrentham Co. handles products of Rapidayton Pump Div. of Tait Mfg. Co., maker of domestic water systems and cellar drainers; Plastex Co., manufacturer of plastic pipe and fittings; and Larco, Inc. and Century Brass Works, producers of electric water coolers, drinking fountain, and water cooler accessories.

Unarco Appoints Obrig Eastern Regional Mgr.

JOHNSTOWN, Pa.—John T. Obrig was recently named eastern regional sales manager for Unarco Air Conditioning Products — National-U.S. Radiator Corp., it was announced by F. S. Hudson, Jr., general manager of sales, Heating & Air Conditioning Div.

Until recently, when Unarco was acquired from Union Asbestos & Rubber Co., Obrig held the same position in the Air Conditioning Div.

He will headquartered in New York City.

Tuttle & Bailey Names Tarnoff Chicago Manager

CHICAGO—S. Charles Tarnoff, former sales engineer for Sturtevant Div., Westinghouse Electric Corp., has been appointed manager of the new Chicago office and warehouse of Tuttle & Bailey, division of Allied Thermal Corp., New Britain.

The warehouse, located at 61 W. Kinzie St., will stock a complete line of Tuttle & Bailey grilles, registers, ceiling diffusers, and related accessory devices to provide service to customers throughout northern Illinois and the Gary area of Indiana.

The office will offer engineering service to help customers solve specific air distribution problems.

CEDAR RAPIDS, Iowa—A 10-year warm air furnace warranty has just been announced by Century Engineering Corp. here.

The 10-year guarantee covers the furnace heat exchanger. Components such as controls, motors, etc., will continue with the usual warranty as supplied by the individual manufacturers of the components.

No fee will be charged for the 10-year warranty. The warranty will be included with each and every Century warm air furnace, the manufacturer explained.

Heating wholesalers and dealers may secure a sample copy of the warranty by writing Century Engineering Corp., Heating & Air Conditioning Div.

Report #3

THE G-E "VEEP" IN ACTION

How new G-E "Magic Sales-Maker"—a consumer visual sales presentation, popularly called "The Veep"—helps increase sales for G-E Home Heating and Cooling Dealers

FURNAS ELECTRIC COMPANY
BATAVIA, ILLINOIS

SALES REPRESENTATIVES IN ALL PRINCIPAL CITIES



How "VEEP" buttoned up sales of 7 furnaces in a small Missouri market



L. C. BOWEN,
General Heating and Cooling
(General Electric Distributor)
St. Joseph, Mo.

Seven furnaces sold through one mailing! That's the profit-heavy job done by a dealer in Brookfield, Missouri. And since there are only about 2,000 homeowners in Brookfield, it took something special to build a record like that!

And the Stubblefield Home Improvement Co. used something special — a two-fold attack (1) They mailed out imprinted copies of a G-E mailing piece to practically every home owner in town. (2) They followed up inquiries with the "Veep" visual sales presentation. The results were very impressive in all respects.

Stubblefield's distributor, General Heating and Cooling Co., of St. Joseph, Mo., is sold on this two-prong

approach and is using it. L. C. Bowen, General's wholesale salesman, is masterminding similar strokes throughout the territory. As a result of Bowen coaching, one dealer made a sale the first night he used the "Veep."

Watch for more true sales stories like this one—in future G-E advertisements in this publication. They all teach the same lesson:—the profit-wise home heating and cooling dealer is the one who has climbed on the G-E Bandwagon. Want to join up?



FREE! Sales Secrets That You Can Use.
Exciting success stories by G-E salesmen tell how they broke sales records with the aid of the "Veep." For your copy write GENERAL ELECTRIC, HOME HEATING AND COOLING DEPT. AC-96, TYLER, TEXAS.

Progress Is Our Most Important Product

GENERAL **ELECTRIC**

Home Heating and Cooling Dept., Tyler, Texas

For more information about products advertised on this page use Information Center, page 20.

Refrigeration Problems And Their Solution

By Paul Reed
For Service and Installation Engineers



Service Practices Improve Slowly

The last 50 years has truly been the Golden Age of Science, and its end is not in sight. Particularly in the fields of transportation, communication, and the chemical arts, advances have been made that were scarcely dreamed of in 1906.

Today, a man with a good technical education knows more of nature and its forces, and how to apply and control them than all the scientists that ever

lived before this century.

Too bad we have not made as much progress in man's ability to control himself and to live in peace and tolerance with his fellow men. And yet we have known for centuries how to do so. We are just too greedy and too arrogant to apply that knowledge.

A SERVICE TALK 20 YEARS AGO

These reflections were brought on by running across a copy of a talk made almost 20 years ago by a service manager of a large manufacturer, before a group of their dealers. It struck us that

except for the date, that talk blamed and changed unnecessarily. Perhaps we have improved a little in that respect.

He stressed Quality, both in material and workmanship, and he especially warned against moisture in the system and described some of its effects. Just as we do today, he called moisture in the system "Refrigeration Enemy Number One," which it truly is.

He called attention to the various sources from which moisture can get into a system, and on a new installation he recommended pumping a deep vacuum with a good vacuum pump, instead of merely purging.

He urged his dealers to use only the oil supplied or approved by the compressor manufacturer, and to check the oil level on a new installation a day or so after the equipment was first put into operation.

In those days many expansion valves were being unjustly

blamed and changed unnecessarily. Perhaps we have improved a little in that respect. He spoke of the prevalence of evaporators not fully active, because the expansion valve was not properly adjusted or the bulb incorrectly located, or because of flash gas in the liquid line.

He referred to the troubles due to locating the unit in a cold place, and reminded his listeners that plenty of air circulation was necessary for an air-cooled unit—and a water-cooled unit, too, for that matter.

He impressed on those distributors and dealers the need for using good installation materials, and that it was folly to save one dollar on cheap fittings, and spend ten dollars on refrigerant lost when a weak fitting let go.

He told his listeners to pay increased attention to training their installation and servicemen

(needed now, more than ever); to provide them with labor saving tools that enabled them to do a better job; to maintain an ample stock of replacement parts; and, last but not least, to allow his men time enough to do a good job of installing a new installation or servicing an old one.

TALK COULD HAVE BEEN MADE YESTERDAY

These, and other things, sounded just as if he made the talk yesterday; for those same things of which he spoke and which were important to the success of a piece of refrigeration equipment then, are equally important today.

In fact, many of the points he discussed, instead of being less important, are even more important, for equipment is now much more complicated, physical sizes have been drastically reduced, and if anything, equipment is being more heavily loaded than 20 years ago.

QUOTES 20 YEARS OLD

The following are some direct quotations from this Service Manager's talk. He started by emphasizing Quality.

"The dictionary defines quality as 'degree of excellence' and 'suitability for the purpose intended.' Thus, high quality for one purpose, might be low quality for some other purpose, for which it is less suitable.

"The natural tendency, when using the word 'quality' is to think of the material only. When we think of quality shoes, tough oak-tanned cowhide comes to our mind, yet the finest cordovan leather that would be a high quality material for men's shoes, might not be suitable, hence of poor quality for ladies dress shoes for which soft suede or even silk might be more suitable.

"Besides, material is only one factor of quality. Others, such as design, methods of manufacture, and workmanship, are equally important with materials in making a quality product, whether that product be shoes or refrigerators.

"The better manufacturers of refrigeration equipment have constantly improved their products to the point where any interruption of service or unsatisfactory operation, is less likely to be the fault of the product than such causes as moisture, dirt or air in the system, leaks, improper lubrication, unbalance between capacities of the components of the system, bad location, poor installation methods, abnormal voltage, or

(Continued on next page)



For the first time...An accurate field method for adding critical charges of refrigerants

"Virginia's" new Can-O-Gas Multi-Opener provides, for the first time, an accurate method of adding critical charges of refrigerants in the field. With the Multi-Opener No. 2, by means of the proper combination of precision filled weights of "Freon-12," 15 different fractional charges—from 16 oz. to 30 oz. in $\frac{1}{2}$ oz. increments—can be delivered with an accuracy of plus-or-minus 4 grams.

By use of the 3-can Multi-Opener No. 3, 31 different fractional charges are possible, from 24 oz. to 45 oz.,

also in $\frac{1}{2}$ oz. increments. These novel, new Multi-Opener units are easy to operate, and are virtually indestructible. And the throw-away feature of Can-O-Gas containers completes the picture of the convenience of Can-O-Gas Multi-Opener charging. Can-O-Gas Multi-Openers deliver the refrigerant in the gas phase or—when inverted—in the liquid phase.

Order a supply of Can-O-Gas Multi-Openers No. 2 and No. 3 today for accurate field charging.

Refrigeration Division
VIRGINIA SMELTING COMPANY
137 Jefferson St.
West Norfolk, Virginia



ESOTOOL • KINETIC CHEMICALS' "FREON" REFRIGERANTS • METH-CAN-O-GAS • PERMAGUM • WATER TREATMENT CHEMICALS
PRESSTITE TAPE • KWIKWRAP • SUNISO REFRIGERATION OILS
Available in Canada and many other countries

FOR DEHYDRATING AND TESTING...
BEACH-RUSS

Portable
VACUUM PUMPS



Model O Single-Stage Pump—1 mm. vacuum, blank flange, 1 CFM, $\frac{1}{6}$ HP, weight 48 lbs.

Model A Two-Stage Pump—1/10 mm. vacuum, blank flange, 2.5 CFM, $\frac{1}{6}$ HP, weight 80 lbs.

Write for prices and data.

BEACH-RUSS COMPANY
52 CHURCH ST. • NEW YORK 7, N.Y.

Service Practices--

(Continued from preceding page)
improper adjustment of the controls."

That statement is just as true today as it was before World War II, almost a score of years ago. The following statement taken from that talk will be familiar to present day service managers:

HEARD THIS LATELY?

"We inspect and test every compressor returned to us for repair or replacement, particularly those that have been out for a year or less. Our records show that over one-half of those compressors were not defective, but that they gave trouble because of insufficient lubrication, dirt, or other foreign matter in the system (including sand, plaster, sawdust, cotton fibers, etc.) slugging due to liquid refrigerant return, overheating due to poor circulation or excessive suction superheat, or other conditions over which the compressors had no control and for which they could not be blamed.

"Yet, except in a few cases, you dealers were indignant when we charged you for the replacement of the compressors that were mistreated."

He went on to say:

"Please do not construe these statements as attempts to show that the machines are always perfect, are never defective, and are never themselves the cause of trouble. Of course, this is not true, and this is no 'alibi.'

"As you who sell, install, and service them well know, our products need no alibi. They are not perfect; but even if every one were 100% perfect, it would mean a reduction of no more than 10% of your service calls. The other 90% would still be due to the causes mentioned above."

Next week we will quote further from his talk, in which he made specific recommendations for avoiding or lessening various types of trouble. It should be interesting to compare those methods and the ones we recommend today, and see how much or how little alike they are.

(To Be Continued)

Larger Quarters Set for Wolverine's Dallas Depot

HOUSTON, Texas—Wolverine Tube's Dallas mill depot and sales office has been moved to newer and more spacious quarters, announced C. T. Fuller, southwest district sales manager for Wolverine Tube, Div. of Calumet & Hecla, Inc.

The new mill depot will enable Wolverine to better serve customers in the Dallas area. It stocks copper water tube, refrigeration tube, automotive tube, threadless pipe, and S.P.S. pipe.

John Howland, Wolverine's Dallas sales representative, will coordinate the mill depot activities from the Dallas sales office. Telephone number is Emerson 3781.

Trane Names Jaekle

LA CROSSE, Wis.—Donald E. Jaekle, a mechanical engineering graduate of Yale university, has been assigned to the Philadelphia sales office of The Trane Co.

Michigan Contractors Name 2 Officials

LANSING, Mich.—Election of Ed McEnaney of Hager & Cove Lumber Co. here as treasurer of the Refrigeration and Air Conditioning Contractors Association of Michigan was announced here recently.

Appointment of Bill Hart of Leslie, Mich. as temporary executive secretary was also announced.

McEnaney, a charter member of the association, fills the place vacated by Jack Reib, formerly with the same company.

Day & Night Names Distributor

HOUSTON, Texas—The Wes Brown Co. has announced its appointment as distributor in the Houston trade territory for the Day & Night Div. of Carrier Corp.

SLANTS ON SERVICE

"Slants on Service" is a "package" devised by the NEWS to meet the needs of its busy readers in the service and contracting business.

Magnet Saves Time Fishing for Line

A mechanic's cylindrical alnico magnet fastened to a flexible handle (obtainable from auto equipment suppliers) saves time in snagging the fishline used for getting thermostat wires into the basement, according to William B. Tuhonen.

First he drills an $1\frac{1}{16}$ -in. hole up through the stud space and then inserts a folding wood ruler up to a height of about 60 in. to make sure of clearances. Then insert the magnet. A 6-in. length of damper chain attached to the fishline is lowered from above. The magnet attracts the chain and holds it well enough so that the magnet, chain, and line can

be readily pulled through the hole.

Make Your Own Cable

If you find yourself temporarily out of two or three-conductor wire for thermostat or similar connections, you can make your own neatly and quickly out of single conductor wire by using your hand electric drill, suggests M. A. Milton.

Clamp one end of the strands in the drill chuck and grip the other end in a vise or tie to a pipe. Keeping the wires somewhat taut, turn on the drill in short spurts.

Destroy the Evidence

To prevent leaving finger-

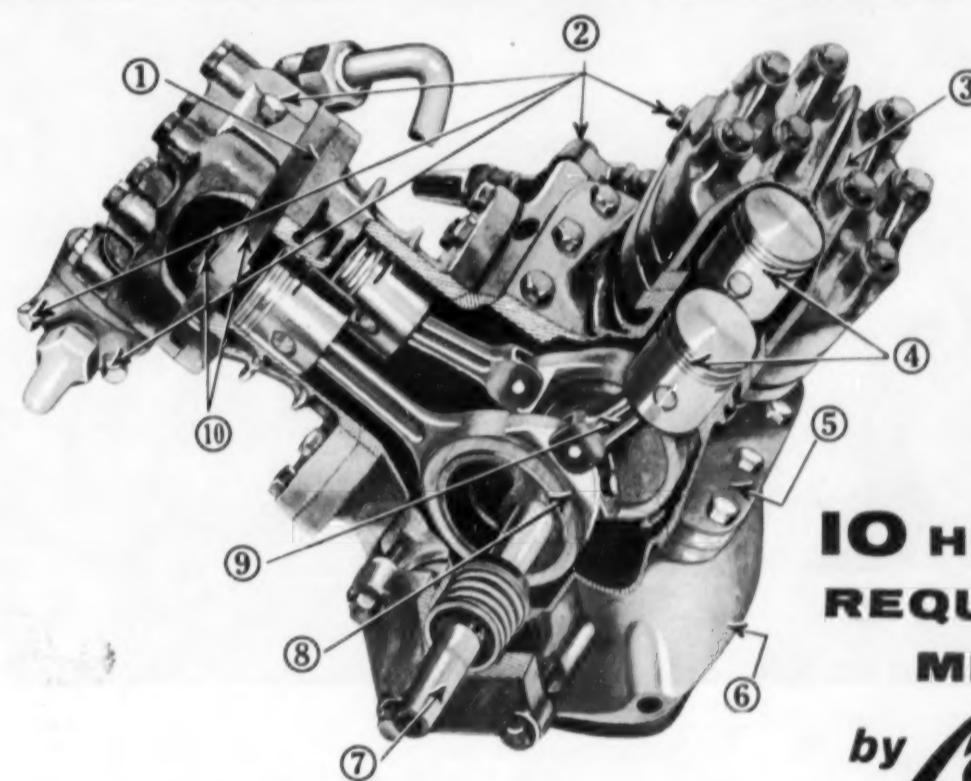
prints or smears on the wall when installing or servicing thermostats, Fred Nolting of Elgin, Ill., cuts out a 10 in. or so square pattern from a clean piece of cardboard or stiff paper and fits it over the thermostat housing. He always uses a fresh, clean paper for every job he does.

Hospital Wing Cooled

BIRMINGHAM, Ala.—East End Memorial hospital dedicated its new 40-bed wing, representing an investment of \$300,000, August 13.

The entire wing is centrally air conditioned, with vents so arranged that air is brought from the outside into each room, rather than circulated from room to room.

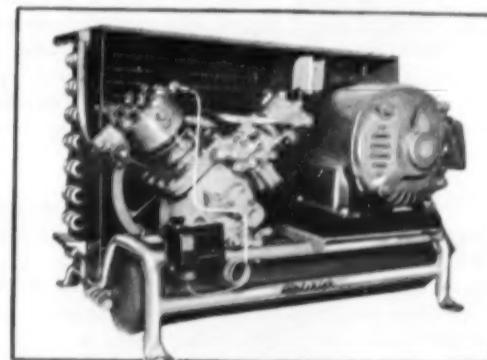
This system is designed to prevent spread of air-borne infections from one room to another, it was explained.



10 HEAVY DUTY REQUIREMENTS MET FULLY

by *Lehigh*

1. Controlled gasket thickness assures uniform piston valve-plate clearance.
2. Choice of connections permits convenient installation of control lines.
3. All castings of finest close grained electric furnace grey iron from Lehigh's own foundry.
4. Lehigh heavy duty units from $\frac{1}{2}$ H.P. thru 5 H.P. are equipped with multiple compression rings.
5. Removable cylinder block. No need to remove compressor body from system to service, repair or clean crankcase area. A real time and labor saver!
6. Larger crank case capacity assures ample oil supply for continuous heavy duty operation.
7. Heavy duty hardened shaft to controlled straightness.
8. All oversize bearing areas — an assurance of longer, trouble-free wear.
9. All moving parts controlled to .0005 tolerance throughout.
10. Valve plate precision ground and lapped. Reeds are finest Swedish steel.



Lehigh
MANUFACTURING CO.

DIVISION OF LEHIGH, INC.

EXPORT DEPARTMENT, 13 E. 40th STREET, NEW YORK CITY

plant: LANCASTER, PENNA.



Who will be the top residential air conditioning contractors tomorrow?

Your key contractors today may not be the most important contractors tomorrow

Today's residential air conditioning market is an ever-changing scene. Indications are that next year many new faces will be among your most important outlets.

As an example, look at the Wichita market. The NEWS conducted a survey in 1954 and again in 1955 as part of a continuing study in major air conditioning markets across the nation. The change in Wichita was startling: Of the five contractors who made the most installations in 1955, three were *not* among the top five of 1954! One contractor—today's third ranking—made no installations in 1954. Together, these five contractors account for 65% of the residential air condi-

tioning systems sold and installed in Wichita in 1955.

Despite this rapidly changing market situation—*each one of these top contractors reads the NEWS!*

As you plan tomorrow's sales, it's hard to identify the faces of the most important contractors. But, when you advertise in the NEWS, you can be sure that top dealers and contractors will be familiar with your products, your policies, your sales and promotion programs.

For the contractor who is considering air conditioning installations for the first time, the NEWS is a must. It is the only place he can turn for the kind of information—the kind of editorial content that can teach him the vital facts that will help him make dollars in this fast-growing industry.

The NEWS is vital, too, to the contractor who has only recently added residential air conditioning systems to his line. He must know the latest trends, the latest products and installation hints that can help him become an important factor in the sale of residential air conditioning systems.

And, for the aggressive leader—the contractor who is today No. 1 in his marketing area, weekly reference to the NEWS is a Monday morning routine. He cannot do without it!

For a solid sales foundation tomorrow, advertise now in the NEWS. Do the 1st job where the 1st job is being done!

AIR CONDITIONING & REFRIGERATION

The Newspaper of the Industry



NEWS

450 West Fort Street, Detroit 26, Michigan

NEW YORK, 521 Fifth Ave., Murray Hill 2-1928-9, Robert M. Price.
CHICAGO, 134 S. LaSalle St., Franklin 2-8093, Allen Schildhamer.
DETROIT, 450 West Fort St., Woodward 2-0924, J. B. Sullivan.
LOS ANGELES, 4710 Crenshaw Blvd., AXminster 2-9501, Justin Hannon.

The Newspaper That Carries More Advertising By Far Than Any Other Publication In The Field.

Servicing Weathertron Heat Pumps (11)

Originally just a theory and for many years subject only to occasional experimental installations, the heat pump of late has developed into a practical and expanding business.

Design, manufacturing, sale, installation, and service of the heat pump have already become important factors in the air conditioning industry, and are bound to grow.

In recognition of the present stage of development, and the expected future, the News is presenting herewith a series of articles on servicing a specific make of heat pump—the General Electric air-to-air "Weathertron."

CONDENSATE DRAIN

Both the indoor and outdoor coils have condensate drains. The indoor drain leads into the outdoor drain pan. Another drain line leads from the outdoor drain pan out of the unit. In order to prevent mixing of indoor and outdoor air, the indoor coil drain is trapped so that a water leg is entrained between the two compartments.

On start-up of the unit after a long shutdown, it is a good practice to add some water to the drain trap to insure no bypassing of air.

LUBRICATION

Oil bearings annually. The bearings on the fan shaft and fan motor should be checked every six months and oiled at least annually with top quality S.A.E. 20 oil.

FILTERS

The Weathertron form C filters may be either of the throwaway or permanent type. The filter should be replaced (throwaway type) or cleaned (permanent type) a minimum of two or three times a year in most installations, since a dirty filter seriously reduces the ca-

pacity of the Weathertron.

The filter is located at the inlet side of the indoor coil on the left side of the Weathertron. To remove the filter, first remove the screw at the bottom of the filter door, then the door may be lifted up and off the unit. The throwaway filter (having a cardboard frame) or the permanent filter (having a metal frame) will slide out readily.

The proper cleaning method is outlined below:

1. Wash the filter with a garden hose spray from the clean side to remove the larger dust particles.

2. Then scrub the filter with a brush using hot soapy water or an oil dissolving detergent such as All or Dash.

3. Rinse off with cold water and let dry.

Recondition for use as follows:

1. Coat the filter until it is saturated with a mixture of SAE-30 oil diluted to 3-1 with carbon tetrachloride or some other oil diluting liquid which is not explosive.

2. Allow the filter to stand on end until all volatile materials are evaporated and excess oil is drained off then reinstall.

CAUTION: Do this outside of the building or in a well ventilated area to eliminate injury from the fumes.

There are no filters in the outdoor air circuit so the OD coil should be checked periodically for dirt. If it becomes dirty, it should be thoroughly washed down.

(To Be Continued)

PARTS ORDERS for

UNIVERSAL

- AIR CONDITIONERS
- REFRIGERATORS • FREEZERS and
- BEVERAGE COOLERS

including Alco; Ambassador; Armaid; Artkraft; Cooleraire; Majestic; Philharmonic; Supremacy; U. S. Capitolaire. Should now be sent to:

UNIVERSAL DIVISION
THE HORTON COMPANY
915 Liberty Ave., Pittsburgh 22, Pa.

CALL ON MIDWEST FOR

YOUR JOB RATED PUMP

UP TO 65 GPM AND 45 FOOT HEAD



CV SERIES

CH SERIES

In the MIDWEST line you will find a complete line of centrifugal pumps for use in refrigeration systems, beverage coolers, ice cube machines, condensate disposal tanks and general circulation uses. 140 models from 1/125 to 1/2 HP in submerged, side flange mounted and close coupled design. Ask our engineering department to recommend the proper MIDWEST pump for your application.

TECH-TRON CORPORATION

LAWRENCE, KANSAS

Spencer Thermostat Names Haun to New Field Sales Post

ATTLEBORO, Mass.—Burton O. Haun, Jr. has been appointed to the newly-created post of

field sales manager for Spencer Thermostat Div., according to Jerome Ottmar, vice president, Metals & Controls Corp.

Haun graduated from Washington university with the degree of B.S. in electrical engineering in 1937, according to the announcement.

Previous to joining Spencer in 1947, Haun worked for The Emerson Electric Mfg. Co. At Spencer Thermostat, he has served as application engineer, field engineer in the Dayton territory, and assistant product manager, motor protectors and starting relays.

Haun is a member of ASRE and AIEE.

Mueller Announces Promotions, Additions In Field Sales Staff

PORT HURON, Mich.—Promotion of three sales representatives to district managers and the appointment of two new sales representatives were announced recently by Robert L. Gibbs, general sales manager for the Mueller Brass Co. of this city.

George L. Duddy, formerly sales representative in the Cincinnati office has been promoted to district manager of the New Orleans territory.

Duddy has had several years' experience as a sales correspondent at the home office and as a sales representative with the Chicago Wholesale Distributing Div.

Vincent A. Bower, previously with the Detroit office, has been appointed district manager of the Dallas, Texas territory. He joined the company in 1940 and has worked for a number of years in the sales department at the main office.

E. L. Treppa, for three years a sales representative in the Chicago office, will manage the

AAF Appoints Munson Southern Regional Mgr.

LOUISVILLE, Ky.—Morris G. Munson, St. Petersburg, Fla., has been appointed southern regional manager, American Air Filter Co.

In announcing the appointment, John Hellstrom, vice president and director of sales for AAF, said Munson will be responsible for the field sales organization of AAF in Florida, Georgia, Alabama, Mississippi, Louisiana, Texas, Arkansas, and Oklahoma.

get rid of
SCALE
...for good!

With **ANCO** Condenser Cleaner Cooling Water Treatment

Every water-cooled air conditioning and refrigeration system accumulates scale. And as the scale builds up, efficiency comes down. Power bills go up! Sooner or later you have an equipment failure and major repairs. It can all be avoided easily and cheaply. Simply dissolve ANCO CONDENSER CLEANER in the sump while the system is in operation. In a few hours scale and rust are gone and head pressure is back to normal.

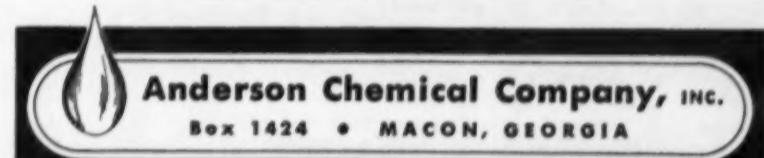
Once the system is clean, keep it that way with ANCO COOLING WATER TREATMENT. It comes in convenient individual cans which are placed in the condenser pan or tower basin where the contents gradually dissolve into the cooling water.

Don't Ask for Trouble—Ask for ANCO Products.
Available at Your Wholesaler.

FREE

WATER TREATMENT MANUAL

A complete booklet on the control of scale, rust and algae in refrigeration and air conditioning systems. No service department should be without a copy. It's yours for the asking.



Anderson Chemical Company, Inc.

Box 1424 • MACON, GEORGIA

Edwards— CO-AXIAL CONDENSERS

The NEWEST design in water-cooled refrigerant condensers. Used by major equipment manufacturers because of these—

SELLING ADVANTAGES:

- Use 35% less water
- Cost reduced 30 to 40%
- Stock sizes: 1/2 to 7 1/2 tons
- No internal joints
- Easy installation
- Many compact shapes

EDWARDS ENGINEERING CORP.
100 ALEXANDER AVENUE • POMPTON PLAINS, NEW JERSEY

RSES Regional Forum--

(Concluded from Page 1) is set for 10 a.m., Friday, Sept. 21, following registration at 9 a.m. There will be remarks by J. Lawrence Hall, general chairman of the forum, and welcoming addresses by M. M. Lawler, president, Air-Conditioning & Refrigeration Institute, and Starr Hull, executive secretary of the Air-Conditioning & Refrigeration Wholesalers.

Refrigerant Distributors To Be Discussed

Also on the program for the first session is a presentation by William H. Krack of Sporlan Valve Co. on "Refrigerant Distributors for Direct Expansion Multi-Circuit Evaporators." He will cover various types of refrigerant distributors, how they were developed, and how they work.

Opening the Friday afternoon

If your eye is on sales



sell
dacor

DISPOSABLE ACTIVATED CARBON ODOUR REMOVER

an entirely NEW idea in filters!

Out of the magic of activated charcoal (the fastest odor removing agent known) comes a filter so new all others are obsolete! DACOR does everything a filter should . . . removes all odors, smoke and smog, stuffiness, dust and pollen. Adds true air purification to air conditioners and forced-air furnaces. No other filter offers so much in real sales appeal. Write for complete DACOR details, today!

- ★ DACOR lowers fuel costs by increasing unit efficiency
- ★ DACOR eliminates odors, tobacco smoke, smell and smog
- ★ DACOR traps dust, dirt and pollen

BARNEBEY-CHENEY
Company, Columbus 19, Ohio

Barnebey-Cheney Co. 917
Columbus 19, Ohio
Tell me more about Dacor!
My Name _____
Company _____
Address _____
City _____
State _____

HEATING EQUIPMENT AND AIR CONDITIONING DEVELOPMENT ENGINEER

National Manufacturer wants experienced project engineer to head up development of domestic heating and air conditioning products. Responsibility on national division staff requires good management team man. Attractive future, salary and benefits.

Send resume to BOX A5610,
Air Conditioning & Refrigeration News

methods of proper installation of duct insulation.

Speakers for the Saturday afternoon session and their topics are:

N. H. Richfield, manager, Burners, Controls & Accessories Dept., American Radiator & Standard Sanitary Mfg. Co.—"Oil Burners and Oil Heating"; Donald J. Barday, technical assistant, Kinetic Chemicals Div., E. E. du Pont de Nemours & Co.—"Some Unusual Applications of Mechanical Cooling"; and William J. Donovan, president, William J. Donovan Co.—"Condensers—Pick the Best Type for the Job."

Richfield's presentation will include a discussion and demonstration with an oil burner on the platform, of how a gun-type burner works, how it is made, adjusted, and repaired, and a sound-slide film by the Oil Heat Institute.

Odd Uses of Refrigeration

Barday will describe some off-the-beaten-path uses of refrigeration that Kinetic has encountered. Donovan will discuss what kind and size of condenser to choose and why.

Final event on the Saturday afternoon program is a business meeting of the New England States Association, RSES.

A banquet and entertainment sponsored by the New England States Association will be held Saturday evening.

To View ARW Movie 'How To Sell Quality'

Another "Information Please" session will be conducted Sunday morning, starting at 10 o'clock. In the afternoon, there will be a showing of a movie by the Air Conditioning & Refrigeration Wholesalers association. Entitled "How To Sell Quality," it shows in a humorous manner how to, and how not to, attempt selling.

This will be followed by a contest, sponsored by Mueller Brass Co., to select the champion solderer of the New England states. The winner will receive a certificate and prize.

In another forum contest, four cash prizes of \$50, \$25, \$15, and \$10 will be awarded for the best service gadgets displayed. A gadget is defined as any special tool or device used by a service engineer in his daily work which enables him to save time or perform a better job.

Cincinnati Synagogue To Be Air Conditioned

CINCINNATI—Ground-breaking ceremonies are expected to be held in the fall for the new \$200,000 air conditioned home of the Forest Avenue Synagogue which will be erected on Stover Ave. in Golf Manor.

Government Contracts

ARMY

Contracting Officer, Fort Detrick, Frederick, Md. FURNISH AND INSTALL AIR CONDITIONING SYSTEM at Bldg. 120, Fort Detrick. Bid sets, Drawings, and Specs. are available—IFB CML-18-064-57-47 B—Bid Opening 25 Sept. 56.

Quartermaster Purchasing Agency, Columbus General Depot, Columbus, Ohio. REFRIGERATOR, Mechanical, Household 3 line items—Quantity various—IFB 57-121B—Bid Opening 20 Sept. 56.

PIPE, AIR CONDITIONING, 2 line items—Quantity various—IFB 57-125B—Bid Opening 1 Oct. 56.

NAVY

Navy Purchasing Office, 4th & Independence Ave., Washington, D. C. Attn.: SPF-1A. ICE CUBE MAKING MACHINE, tube, mechanically refrigerated, self-contained, automatic, 115 V. a.c. single phase, 60 cycle, per Spec. MIL-I-19012 (Ships) dated 22 Aug. 55 as modified in invitation. The material under this spec. is of a type on the Qualified Products List.—14 ea.—IFB 600-397-57-S—Bid Opening 2 Oct. 56.

Electronics Supply Office, Great Lakes, Ill. FAN, CENTRIFUGAL, Centrifugal Vane Electric Motor operated, non-protobee, guarded, Motor 115 V. a.c. 1.4 Amps. 15/60 cycles single Phase 120 W. 1/10 hp. at 7,300 r.p.m. 8-9/16 in. lg. 3-29/32 in. deep 4-7/32 in. high max. across brush holder 145 CRM at 8,000 r.p.m., 107 c.f.m. at 8,950 r.p.m. 1 speed direct drive, CW Rotation bottom horizontal discharge molded bakelite blower housing, Howard Industries Model No. 715-10 or equal, Navy Stock Number N17-B-21188-4040, FSN N 4450-203-3895—1,000 ea.—IFB 126-192-57B—Bid Opening 3 Oct. 56.

AIR FORCE

Eglin Air Force Base, Florida. INSTALLATION OF AIR CONDITIONING SYSTEMS in Buildings 365, 377, and 531 at Eglin Air Force Base, Fla.—Job—IFB 08-603-57-96 B—Bid Opening 3 Oct. 56.

Directorate Procurement and Production, Middletown Air Materiel Area, Olmsted Air Force Base, Pa. SUPPLIES AND SERVICES FOR REPAIR AND OVERHAUL OF CYLINDER REFRIGERATION ASSEMBLIES—Job—IFB 36-600-57-63B—Bid Opening 19 Sept. 56.

Furnish all supplies and services for REPAIR AND OVERHAUL OF CYLINDER REFRIGERATION ASSEMBLIES—Job—IFB 36-600-57-62B—Bid Opening 19 Sept. 56.

"A CASE OF COOL JUDGMENT"

FLO-COLD DRINKMASTER

STAINLESS STEEL CUBER—COOLER.

SOLD THRU DEALERS ONLY
WRITE

United Frigulator Engrs.
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AVAILABLE IN SIZES 4 to 10 FT.

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UNIT

An Exclusive Betz Design

QUALITY
AT LOW
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Installed above the top shelf, Refrigerated air is exhausted against the back wall • Prevents high velocity air movement over stored products and maintains uniform temperatures from top to bottom of cabinet • Avoids door sweating and refrigeration losses when doors are opened • Capacities 100 to 300 BTU per 1° TD.

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BETZ DIVISION

BOHN ALUMINUM & BRASS CORPORATION

DANVILLE • ILLINOIS

NARDA on Central Service--

(Concluded from Page 1, Col. 4) industry! To tell it and the appliance manufacturer together that the service income is needed by the self-servicing dealer to partially supplement his declining discounts (which don't begin to get up to where they belong until you're well out of the price bracket of your most effective competition), and by independent service firms which provide to the appliance and television dealer and the industry the same support that independent garages provide auto dealers and their industry.

4 Major Mfrs. Said To Be Edging Into Servicing Field

"Today, we have four of the major appliance manufacturers edging into the field, previously occupied by the independent serving industry.

"The present trend seems to be to subsidize the price of service by having the purchaser of the new appliance and the sales dealer carry the cost of subsidization. This places the independent servicer in a position where his prices are far greater than his competitor, the manufacturer.

"Isn't it reasonable to believe that this would, in a short time, force all appliance manufacturers to follow this trend to remain on a competitive basis? Can any of us show a profit servicing a portable television receiver for \$12 per year, including installation of a picture tube?

"For a number of years, RCA has hired the Elmo Roper Co. to poll segments of the country regarding the quality and cost of TV service. The following are parts taken from the latest report, which came out last May.

"An overwhelming majority of the nation's 36,000,000 TV set owners are well satisfied with the promptness, quality, prices, and courtesy of TV service technicians."

"The survey revealed that '91% of the set owners interviewed were pleased with the quality of the serviceman's work.' '83% were satisfied with the price, and 89% thought their call was answered promptly.

"These findings are a fine vote of confidence on the part of the public in the skill and integrity of the more than 100,000 highly trained technicians who install and maintain receivers."

"From another major manufacturer of appliances, speaking to a large group of dealers and technicians under the date line of Aug. 26, 1956, we read the following: 'If the company or the local distributor feels that local factory service is necessary to enhance or protect our reputation and thus help sell appliances and television, such service will be provided.'

"Right now some member dealers are losing business.

"The jolting shift from self-servicing dealers and independent service to factory service has, I am convinced, been handled as fumblingly as was possible by the factories. It is a classic example of poor dealer-industry relations.

"Economics decree that two outlets of comparable strength cannot sell identical merchan-

dise in the same market if one offers it at a very low price and depends on such devices as central service to keep overhead down and the other offers it at a price which covers the traditional services the dealer has performed since the start of the industry.

"The second dealer has made an investment in manpower, parts inventory, and service facilities and space. It was done with the factory or distributor's full knowledge, or, in most instances, on their insistence!

"Manufacturer managements would do the same thing, were they to put some real intelligent effort behind getting certain facts out to the dealers and independent service. I mean such facts as:

Should Get These 4 Facts Out to Dealers'

1. How factories intend to adjust prices to servicing and non-servicing dealers so that both are treated fairly;

2. What standards will be required of independent service shops and self-servicing dealers to give them approval as full, official service agencies;

3. Whether independent service agencies will be permitted to purchase parts and components at prices equal to those of their competitor, the factory-controlled service agency (a cause of serious factory-dealer-service tensions);

4. In what size communities the factory-service operations will be established and how arrangements will be made in smaller communities to equalize their deal with those of big cities, whose newspapers carrying low price ads, are read by small-town customers.

Must Provide Answers Quickly'

"The answers to these questions must be provided to the independent service firm and the retailers doing their own service very quickly, if serious conflict between supplier and supplied is not to be created.

"Until then, dealers and service firms can only look upon the central service advance as a serious menace to their futures and must begin seeking or creating the necessary weapons with which to fight back.

"Let's hope we've received only part of the story so far and that we can continue to work with, not against, our suppliers."

30-Floor Nashville Bldg. To Be Fully Conditioned By Chilled Water System

NASHVILLE, Tenn. — Rising 409 ft. into the sky, the new Life & Casualty building here will be the tallest completely air conditioned commercial structure in the Southeast.

The entire building will be conditioned by air conditioning and refrigeration equipment supplied by Worthington, consisting of both refrigerating and air conditioning systems capable of supplying 600 tons of refrigeration which will provide all of the chilled water.

The equipment comprising the systems include 434 Worthington induction circulators and 40 fan-and-coil units.

Worthington is also supplying a "Freon" condensing unit, high pressure primary air fans, sprayed coil dehumidifiers with reheat and preheat coils, 35 central station air conditioning units, Multi-Zone units, heating and ventilating units, exhaust fans, and blast coils.

Gerald Hulett, Sales Executive, Dies at 66

DETROIT — Gerald "Gerry" Hulett, well-known appliance industry sales executive, died here recently. He was 66 years old.

He worked with some of the pioneer appliance firms, and was sales manager of Electromaster, Inc. for 20 years. Later he was with Bendix Home Appliances, Inc. He gained national recognition as a speaker on selling.

OUTSTANDING OPPORTUNITY

For Air Conditioning Sales Executives

The continuing expansion of Amana's Air Conditioning Division creates the need for several key sales executives.

These men will probably be in their middle 30's to early 40's. They are to have recent and extensive experience in selling to distributors; and a sound background in dealer sales. Specific air conditioning experience, while valuable, is not vitally necessary. Applicants should, however, be thoroughly familiar with the merchandising, promotion, training and sales problems of retail appliance work.

These are challenging opportunities for outstanding men with proven performance records and healthy business pasts. You will function at the top level, as part of a harmonious management team. Salary will be fully commensurate with experience, ability, and background. Replies will be kept in complete confidence; all correspondence will be acknowledged. Send complete resume and a small snapshot to:

J. A. RISHEL, JR.,

AMANA REFRIGERATION, INC.
AMANA, IOWA.



6 BIG REASONS WHY...

Gloekler MEANS BUSINESS

- ★ **EXPERIENCE:** Gloekler has been designing and manufacturing commercial refrigerators for more than 50 years.
- ★ **QUALITY:** Only materials and workmanship that ensure maximum performance are used in our products.
- ★ **DESIGN:** Both standard and custom designs are available—offer every important advantage to users.
- ★ **PERFORMANCE:** We provide written assurance of faithful performance and economical maintenance of each unit.
- ★ **PRICING:** Experience and modern production methods allow highest quality standards at competitive prices.
- ★ **PROFIT:** Dealers are assured of full markups and additional potential profit from customers through sale of add-on features.

**WALK-IN & REACH-IN REFRIGERATORS
STANDARD AND CUSTOM DESIGNS
FOR EVERY COMMERCIAL and INSTITUTIONAL USE**

GLOEKLER REFRIGERATOR CO.
ERIE, PENNSYLVANIA

NEW KRACK LOW TEMPERATURE Electric Defrost Unit Kooler Completely Automatic

- Fewer defrost periods needed.
- Insulated cabinet retains, circulates heat when closed . . . speeds defrosting.
- Internally wired for easy installation.

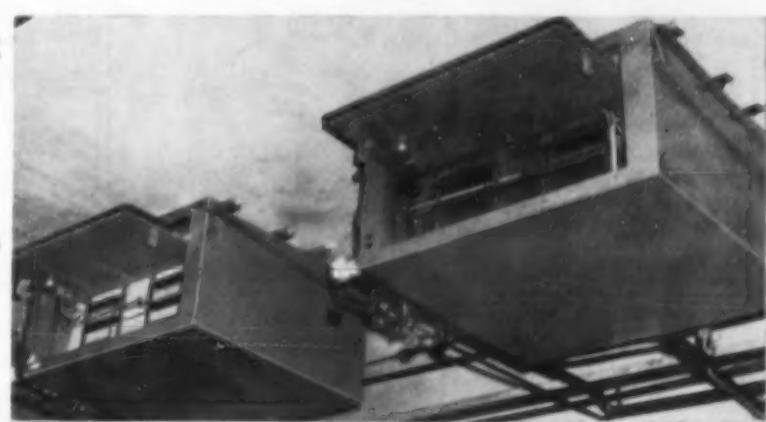
GET NEW BULLETIN ED-1055 for details and specifications!



REFRIGERATION
APPLIANCES, INC.

901 W. LAKE ST.
CHICAGO 7, ILL.

25th Anniversary in Refrigeration and Air Conditioning



WHOLESALE: United Refrigeration Supply. CONTRACTOR: Poletti Refrigeration Service. USER: Liberty Cash Grocery Warehouse, Memphis, Tenn.

AIR CONDITIONING & REFRIGERATION NEWS REPRINTS

The following articles have appeared recently in Air Conditioning & Refrigeration News, and are now available in reprint form. Supply of some reprints is limited. The order coupon below can also be used to obtain "selected" reprints not listed by giving title, page, and issue date.

BOOKLET FORM

A) "AIR CONDITIONING THE HOME"

A comprehensive study on year 'round residential air conditioning—seven sections including, why people buy it, market conditions, how to sell it, estimating costs for various types of installation, FHA requirements, plus much more valuable information. 9" x 12" in size, finely printed and profusely illustrated.

Only \$1.00 each.

B) "COMMERCIAL PACKAGED AIR CONDITIONERS AT WORK"

70 pages, 9" x 12"—the first comprehensive book covering this important segment of the air conditioning industry. Includes market, survey information, commercial, institutional and industrial applications, and a complete explanation of the fast growing segment of the commercial market—packaged heat pumps.

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C) "SHORT, SHORT COURSE IN AIR CONDITIONING FUNDAMENTALS"

A brand new booklet just off the press dealing with air conditioning in basic, understandable terms. Five sections, including Air, Moisture; How to distribute air; Trouble-shooting air; Ventilation, Filtration; Sound, Comfort.

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D) "PRODUCT KNOWLEDGE, PROTECTIVE MAINTENANCE, TROUBLE-SHOOTING, ADJUSTMENT, REPAIR OF ELECTRIC MOTORS"

A discussion by T. N. Schierloh, service technical manager of General Motors' Delco Products Div., on servicing refrigeration and air conditioning motors.

Only 40¢ each.

E) "COMPARISON OF REFRIGERANTS 12-22"

Paul Reed presents a complete digest and factual comparison of the two refrigerants 12 and 22. Twelve fact-filled pages to help prevent troubles that have been and are now being experienced in the field.

Only 75¢ each; 50 or more copies, 50¢ each.

Everyone concerned with air conditioning should read the above books and keep them handy for reference purposes. Order your copies now.

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- 1) Humidity Control In Home Cooling
- 2) Distributor Tells How He Gets Dealers to Sell Heat Pumps—Right Now
- 3) Experts Eye Home Air Conditioning
- 4) Packaged Units Chosen for Converting Warehouse to Office Building
- 5) Proper Refrigeration Zone Use Adds to Food Life
- 6) News Survey Shows Trends In Residential Air Conditioning
- 7) Psychological Study Shows Hidden Benefits of Home Conditioning
- 8) How Ceiling Diffusers Can Be Used In Residential Systems
- 9) '55 Home Unit Sales Up 34% In N. Y. Area
- 10) Chilled Water Central Air Conditioning Installed for \$1,000-\$1,400; Utilizes Wet Heating System, Needs No Duct
- 11) Detroit Air Conditioning Sales at New High
- 12) Survey Shows Equipment In Food Stores
- 13) Survey Points Up Replacement Market for Restaurant Refrigeration Equipment
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- 15) How to Convince Home Buyer Air Conditioning Adds More Value Than Cost of Equipment

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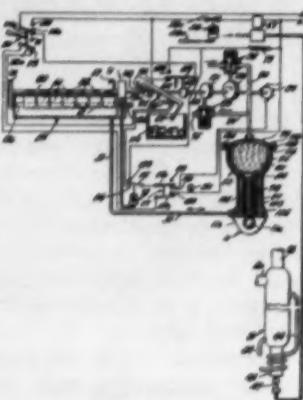
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PATENTS

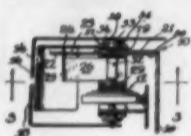
Week of May 1 (Continued)

2,743,588. ICE MAKER. Victor G. Dreier, Evansville, Ind., assignor to Servel, Inc., New York, N. Y., a corporation of Delaware. Application March 5, 1953, Serial No. 340,447. 11 Claims. (Cl. 62—7.)



1. An ice mold having an ice forming compartment therein, means for supplying a measured quantity of water to the interior of said compartment to be frozen therein, means for supplying cooling medium to the exterior of said compartment to freeze said water, and means for supplying a measured quantity of heating medium to the exterior of said compartment to free the ice from the interior thereof, said water supply means, said cooling medium supply means and said heating medium supply means being interconnected in a manner that the freezing of water in the compartment energizes the heating medium supply means and de-energizes the cooling medium supply means, and the supplying of a measured quantity of water to the interior of the compartment causes withdrawal of a measured quantity of heating medium from the exterior of the compartment.

2,743,610. HYGROMETER. Ernest H. Seibert, Chicago, Ill., assignor, by means assignments, to Cory Corp., a corporation of Delaware. Application Sept. 1, 1950, Serial No. 182,677. 3 Claims. (Cl. 73—337.)



1. In a humidity indicator, a hygroscopic element consisting of two thin, rectilinear strips one of which is a thin flat strip of moisture absorbent material and the other a thin flat co-extensive strip of metal adhesively united into an integral unit disposed in a straight line position when the humidity is normal, a scale for designating the humidity in the surrounding atmosphere of a room or other enclosure, an indicating pointer associated with the scale for visually indicating on the scale the humidity present, a lever arm extending longitudinally of said element and pivotally mounted for horizontal movement and provided adjacent one end with an elongated slot, a rotatably mounted slotted post attached to the indicating pointer, one end of said element being secured to the slotted post and indicating pointer and the other end having a projecting part freely supported and longitudinally movable in the elongated slot whereby said element is free to curve convexly or concavely from its normal straight line position upon the absorption of a greater or lesser quantity of moisture than normal, with such curvature being transmitted to the post and by it to the indicating pointer, said arm being adjusted to set said element to a desired initial position.

2,743,606. HIDE AWAY AIR CONDITIONER. Talman Horace Tanner, San Antonio, Tex. Application Aug. 10, 1953, Serial No. 373,290. 1 Claim. (Cl. 257—8.)

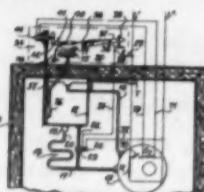
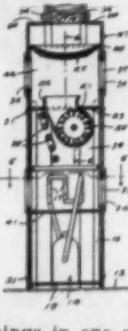
A heat transfer system comprising a unit for installation between a pair of studs in a partition wall, said unit comprising a frame having an elongated substantially rectangular bottom plate to the corners of each of which is secured, respectively, a vertically extending angle member, an elongated substantially rectangular top plate having an opening formed therein, said top plate being secured to said angle members adjacent the upper ends thereof, a substantially vertical end wall fixedly secured to each end of said top plate and the top portions of said angle members, an elongated substantially rectangular baffle wall extending between and supported on said end walls adjacent the top edge thereof, said baffle wall being concave-convex about its longitudinal axis with the concave side thereof facing said

top plate, said frame having opposed open sides and ends and being disposed in said partition wall with said ends thereof and said end walls positioned in said partition wall adjacent a pair of wall studs with the sides of said frame opening in opposite sides of said partition wall, a cover plate for each of said open sides of said frame, means fixedly securing the upper end of each of said cover plates to opposite sides of said partition wall, each of said cover plates having a pair of vertically spaced openings formed there-

side walls, and a bottom, said bottom having an opening therein defined by edges spaced from the said front and side walls and extending to said back wall, a housing covering said opening and providing space for a freezer machinery unit, said housing having front and side vertical walls, said back wall having an opening therein adjacent to and affording access to said housing, and means securing the vertical walls of said housing to said edges and said back wall exclusively whereby the sole support for said housing is derived from said bottom and back cabinet walls.

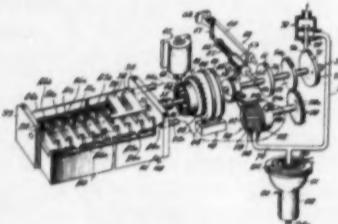
Week of May 8

2,744,389. DEFROSTER CONTROL FOR REFRIGERATING SYSTEMS. Estel C. Raney, Delaware, Ohio, assignor to Banco Inc., Columbus, Ohio, a corporation of Ohio. Application Oct. 15, 1952, Serial No. 314,907. 6 Claims. (Cl. 62—4.)



4. The combination of a refrigerating mechanism having a cabinet and a cooling unit in said cabinet, means forming a conduit for directing air from the exterior of said cabinet into heat exchange relation with said cooling unit, said conduit arranged to be substantially blocked by the condensation and freezing of moisture from air passed therethrough and affected by subfreezing temperatures of said cooling unit, and means responsive to the presence of said frozen moisture to initiate a defrosting cycle in said cooling unit.

2,744,390. ICE MAKER. Ernest W. Partsch, Galesburg, Ill., assignor to Servel, Inc., New York, N. Y., a corporation of Delaware. Application Oct. 26, 1954, Serial No. 464,830. 13 Claims. (Cl. 62—7.)

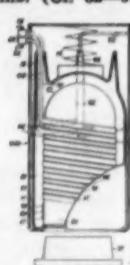


1. In an automatic ice maker, a stationary freezing mold including exterior side and end walls and a plurality of interior partition walls dividing the mold into a plurality of aligned open-topped ice-forming compartments, means for filling with water a first set of said ice-forming compartments to the exclusion of a second set of said ice-forming compartments, means for filling with water the second set of compartments to the exclusion of the first set, means for alternately freezing water first in one and then in the other set of ice-forming compartments, and said plurality of ice-forming compartments being arranged in said freezing mold in a manner that ice-forming compartments of each set are sandwiched with ice-forming compartments of another set, whereby the filling with water of one set of compartments thaws ice free of another set of compartments.

2,744,391. APPARATUS FOR FREEZING, COOLING BEVERAGES OR COMESTIBLES. Gerald Newenham Deane, Buenos Aires, Argentina. Application Aug. 3, 1951, Serial No. 240,132. 3 Claims. (Cl. 62—9.)



1. A cooling unit, for use in the production of ice or in freezing or cooling beverages or comestibles, comprising, in combination, a vessel receiving the medium to be cooled, said vessel having inner and outer walls spaced apart with the space between such walls evacuated, an evaporating coil formed of glass tubing surrounding and fused to the inner wall of said vessel with its end portions extending through and fused to the outer wall of the vessel, said coil being spaced apart from the inner surface of said outer wall and having its outer surface at its side remote from the medium in the vessel mirrored to minimize radiation losses, and means for connecting the ends of said coil to pipes included in a refrigerant cir-

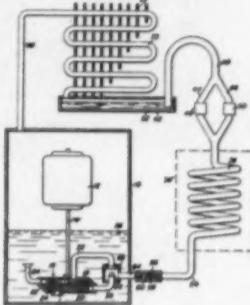


(Continued on next page)

PATENTS

(Continued from preceding page)
cuit, the evacuated space between the walls of the vessel insulating the inner wall of said vessel and said coil against the transmission of heat thereto from outside the outer wall of the vessel.

2,744,392. JET OPERATED REFRIGERATOR. Raymond Ridgley, Marysville, Wash. Application Dec. 3, 1954, Serial No. 472,919. 5 Claims. (Cl. 62-117.65.)



4. A refrigeration system comprising an enlarged tank, a quantity of circulating liquid in said enlarged tank, a condenser communicating with the upper portion of said enlarged

CHIEF REFRIGERATION ENGINEER

Unusual opportunity for a well grounded man who wants and can take responsibilities.

SALARY OPEN

Location New York City—Our organization knows of this ad. Write in confidence to Box 1000, Reissner Adv. Agency, 110 West 34 St., N.Y.C.

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RATES for "Positions Wanted" \$7.50 per insertion. Limit 50 words. 15¢ per word over 50.

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ADVERTISEMENTS set in usual classified style. Box addresses count as five words, other address by actual word count. Please send payment with order.

POSITIONS WANTED

SALES POSITION with distributor or manufacturer in the Southwest or West Coast. Extensive national experience in refrigeration and air conditioning as sales executive. Will consider regional opportunity. Write BOX A5621, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

LARGE REFRIGERATION wholesaler has openings for outside salesmen and counter-men at several branches. Especially good opportunity for man with selling ability who desires change from contracting to wholesale. Write, giving complete information and salary desired. W. A. CASE & SON MFG. CO., attention: Mr. E. H. Brown, 33 Main Street, Buffalo, New York.

MANUFACTURER'S REPRESENTATIVE to sell special items of commercial refrigeration, which will be fill in items for established dealers. Territory, New York, Pennsylvania, Midwestern or Southwestern states. THE C. SCHMIDT COMPANY, 1712 John Street, Cincinnati 14, Ohio.

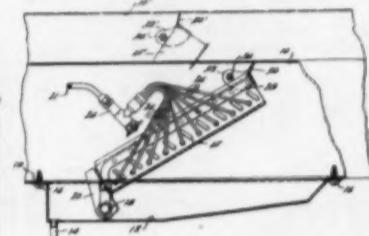
JUNIOR ENGINEER—Air conditioning design and layout prominent Los Angeles contractor. Good salary plus heavy overtime. Free sickness, hospital and accident benefits. Profit-sharing plan. Give complete resume, experience, salary, etc. first letter. Interview arranged. Reply to BOX A5631, Air Conditioning & Refrigeration News.

WANTED: EXPERIENCED, commercial refrigeration servicemen in Detroit area. Only experienced need apply. Top scale. Replies held in confidence. State age and experience. BOX A5634, Air Conditioning & Refrigeration News.

REFRIGERATION WHOLESALE parts salesman wishing to relocate. Position now open in Southwest. Knowledge of heating and air conditioning controls an asset. Minimum of three years experience. Give all particulars in first letter. BOX A5635, Air Conditioning & Refrigeration News.

tank, a liquid refrigerant receiver tank communicating with said condenser, an evaporator, a supply conduit interconnecting said receiver tank and evaporator, a pump mounted in the lower portion of said enlarged tank and immersed in said circulating liquid, means for driving said pump, a jet nozzle, a pressure conduit connected between said pump and nozzle, a housing enclosing said nozzle, a suction conduit interconnecting said nozzle housing and the discharge end of the evaporator for exhausting refrigerant gas from the evaporator, a discharge conduit extending from said housing for discharging the mixed refrigerant gas and circulating liquid into the lower portion of said enlarged tank below the surface of the liquid, said refrigerant gases separating from the upper surface of the circulating liquid and passing into the condenser, and a discharge pump positioned in said discharge conduit, means for driving said discharge pump there discharging the mixture from the nozzle housing.

2,744,393. HEAT EXCHANGE COIL ASSEMBLY. Richard L. Brugler, Trotwood, and De Witt Davis, Sr., Dayton, Ohio, assignors to Chrysler Corp., Highland Park, Mich., a corporation of Delaware. Application July 23, 1953, Serial No. 369,817. 2 Claims. (Cl. 62-140.)



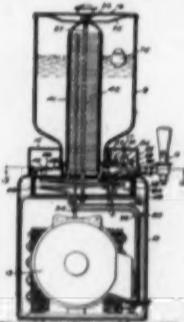
1. A device for cooling air including a duct providing an air passage and having an outer wall provided with an opening and a heat exchange assembly mounted on said duct; said heat exchange assembly comprising a condensate collecting pan secured to said duct around the periphery of said opening and extending outwardly from said outer wall, said pan serving as a closure for said opening, a pipe extending transversely of said pan out-

wardly of said outer wall and pivotally mounted in said pan for rotation about the axis of said pipe, a flat refrigerant evaporator coil positioned within said duct by insertion through said opening, means supporting said coil on said pipe for pivotal movement therewith to accommodate the initial installation of said coil in said duct at a preselected inclination to said duct and manifold means secured to said coil and said pipe for movement therewith, said manifold means defining a refrigerant flow connection between said coil and said pipe.

Address orders for any of the above to: Commissioner of Patents, Washington 25, D. C.

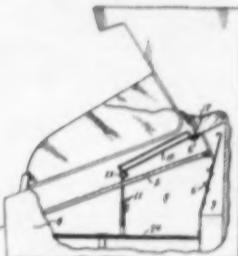
wardly of said outer wall and pivotally mounted in said pan for rotation about the axis of said pipe, a flat refrigerant evaporator coil positioned within said duct by insertion through said opening, means supporting said coil on said pipe for pivotal movement therewith to accommodate the initial installation of said coil in said duct at a preselected inclination to said duct and manifold means secured to said coil and said pipe for movement therewith, said manifold means defining a refrigerant flow connection between said coil and said pipe.

2,744,660. BEVERAGE DISPENSER. William H. Jacobs, Newton, Mass. Application July 18, 1953, Serial No. 562. 8 Claims. (Cl. 222-146.)



1. A beverage dispenser comprising: a storage tank; a substantially cylindrical refrigerating element mounted vertically in said tank; a restricted chamber surrounding the lower part of said element and communicating with said tank, said chamber having a wall provided with an orifice; a pipe leading into said chamber forming a nozzle adapted to discharge substantially tangentially to said element, and a pump connected so as to draw beverage out through said orifice and discharge beverage through said nozzle.

2,744,607. ADJUSTABLE MEZZANINE SHELF FOR REFRIGERATED DISPLAY CASES. George K. Bently, Kendallville, Ind., assignor to McCray Refrigerator Co., Inc., Kendallville, Ind., a corporation of Indiana. Application Feb. 18, 1953, Serial No. 337,521. 6 Claims. (Cl. 312-351.)



1. In a refrigerated cabinet having a top display compartment with front, back, end and bottom walls, a rear flue for discharging cold air forwardly into the compartment through said back wall, a main produce supporting shelf in said compartment, and means on said rear wall within the compartment for supporting the rear edge of the shelf in various positions relative thereto, the provision of a mezzanine shelf in the rear portion of the com-

Wolverine Names Wuerthner

EVANSTON, Ill.—B. J. Wuerthner has been appointed to the sales staff of the midwest district, E. J. Campbell, district sales manager for Wolverine Tube, Div. of Calumet & Hecla, Inc., announced recently.

Wuerthner will help to coordinate midwestern district sales efforts for Wolverine at district headquarters in Evanston. Present your needs. Write BOX A5606.

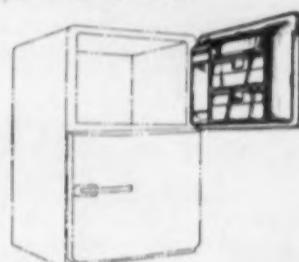
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partment above said main shelf adapted to rest at its rear edge on said shelf supporting means in elevated relation to the main shelf, one or more legs for the forward edge of the mezzanine shelf and a guide bar at the lower portion of said lower edge on which the leg is hinged for forward and rearward swinging movements and on which it has adjustable shifting movements lengthwise of the bar.

Carrier Corp., Syracuse, N. Y., a corporation of Delaware. Application Jan. 3, 1955, Serial No. 33,812. Term of patent 3½ years. (Cl. D67-3.)

DESIGNS

177,604. COMBINATION REFRIGERATOR AND FOOD FREEZER. William A. Allen, Syracuse, N. Y., assignor to Carrier Corp., Syracuse, N. Y., a corporation of Delaware. Application Jan. 3, 1955, Serial No. 33,819. Term of patent 3½ years. (Cl. D67-3.)



177,610. BEVERAGE DISPENSING MACHINE. Cornelius V. Brous, Peterborough, N. H., assignor to Food Engineering Corp., Manchester, N. H., a corporation of New Hampshire. Application Sept. 21, 1955, Serial No. 38,010. Term of patent 7 years. (Cl. D68-3.)



177,605. CABINET FOR COMBINATION REFRIGERATOR AND FOOD FREEZER. William A. Arnsberger, North Syracuse, N. Y., assignor to

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Exposition--

(Concluded from Page 1, Col. 4)
ginia Smelting Co.

Dates for the exposition are Nov. 18, 19, 20, and 21, 1957.

Tentative plans to hold the show at Chicago's Navy Pier on the lake front were cancelled following the show committee meeting, at which the opinion was expressed that the Amphitheatre offers larger facilities and is better adapted to the needs of an exhibit the size of the ARI show.

FACTORS RESPONSIBLE FOR SHIFT

"Factors in the decision included the greater load-bearing capacity of the floors of the Amphitheatre, and better arrangement of space to permit wider flexibility in booth sizes and shapes," the announcement said.

"The Amphitheatre offers an unbroken rectangular space 300 by 600 ft. in area, has large truck entrances on three sides which permit trucking of exhibit material direct to booth locations on the floor, and has a railway siding going directly into the building."

Plans have been set on foot for other phases of the exposition, to be worked out by Exposition Director George E. Mills in the 14 months before the show, Jones said.

GROWTH OF EXPOSITION CITED BY ARI

Pointing to the growth of the air conditioning and refrigeration industry to its present position among "the great industries of the country," Israel said that the biennial expositions of ARI have marched hand-in-hand with this growth, and now "rank among the first 10 trade shows in the country—in size, in scope, and in importance."

"The ARI expositions have truly become 'the market place of the industry,'" he continued.

"More than 250 companies exhibited at the last exposition in Atlantic City. This list includes the leaders in the industry who have found through actual experience that in their over-all sales planning, a well-planned exhibit at an ARI exposition is one of the most effective sales tools possible for implementing their sales strategy and increasing sales."

"We fully expect the 1957 exposition in Chicago to surpass in size and importance all previous shows and to reflect to the credit of the industry."

Ike's Freezers--

(Concluded from Page 1, Col. 2)
deep-freeze units as gifts for himself and the First Lady, Bess Truman."

Anderson said the refrigeration equipment on the President's farm includes three freezers in the basement, two roomy refrigerators flanking the freezers, a standard model refrigerator in the kitchen, and a large walk-in cold-storage unit in the barn.

Ike paid for the units and also "carefully preserved the bills of sale to prove it," according to the column. The President needs extra freezing equipment to handle the meat that is butchered on his farm," it was explained.

ARI Plans on B.t.u. Rating Program--

(Concluded from Page 1, Col. 5)
from one source or another and that the ratings are the one best means of sizing up available units.

The individual manufacturers themselves will handle the testing procedures, it was further noted. ARI's feeling is that there is no necessity now for the association to set up its own laboratory for testing and rating all models of all manufacturers according to B.t.u. capacity.

PLANS FOR HANDLING ALLEGED VIOLATIONS

Jones also explained what the association intends to do if a manufacturer should publish allegedly inaccurate ratings. The ARI, he indicated, will go into action only when a producer's published B.t.u. rating is ques-

tioned directly by a competitor.

"If the competitor tests the unit and finds the results do not agree with the published ratings," Jones said, "ARI will recommend that the two manufacturers get together and attempt to reconcile their differences."

ARI COMMITTEE CAN TEST UNIT

"If this fails to produce results, the competitor protesting the rating will report to a special ARI committee, which will arrange to test the unit in question. If the test bears out the protest, ARI will then advise the producer of that unit that he cannot state that he has tested the unit in accordance with the ARI standard."

Regarding national advertising and promotional literature,

it was reported that in many cases such material will be educational in nature, explaining to the public the significance of the B.t.u. ratings and the opportunity they offer for the consumer to compare performance of various rated units. Such advertising often may list B.t.u. ratings by models, it was stated.

H. F. Hildreth, manager of the refrigeration specialties division of Westinghouse Electric Corp., said his company "will develop a slug for use in all advertising stating: 'This unit is tested and rated in accordance to ARI Standard number 110-56. Refer to local dealer for B.t.u. ratings which are on file in catalog and spec sheets."

Reporting that Welbilt Corp. will continue to publish its B.t.u. ratings in spec sheets, a company spokesman said no decision has been made on incorporating them in national advertising.

A spokesman for Emerson

Although Mitchell Mfg. Co. had not signed the ARI agreement, Howard Haas, advertising and sales promotion manager, was quoted as saying that the company "subscribes to the program in principle."

M-H Filter Plans--

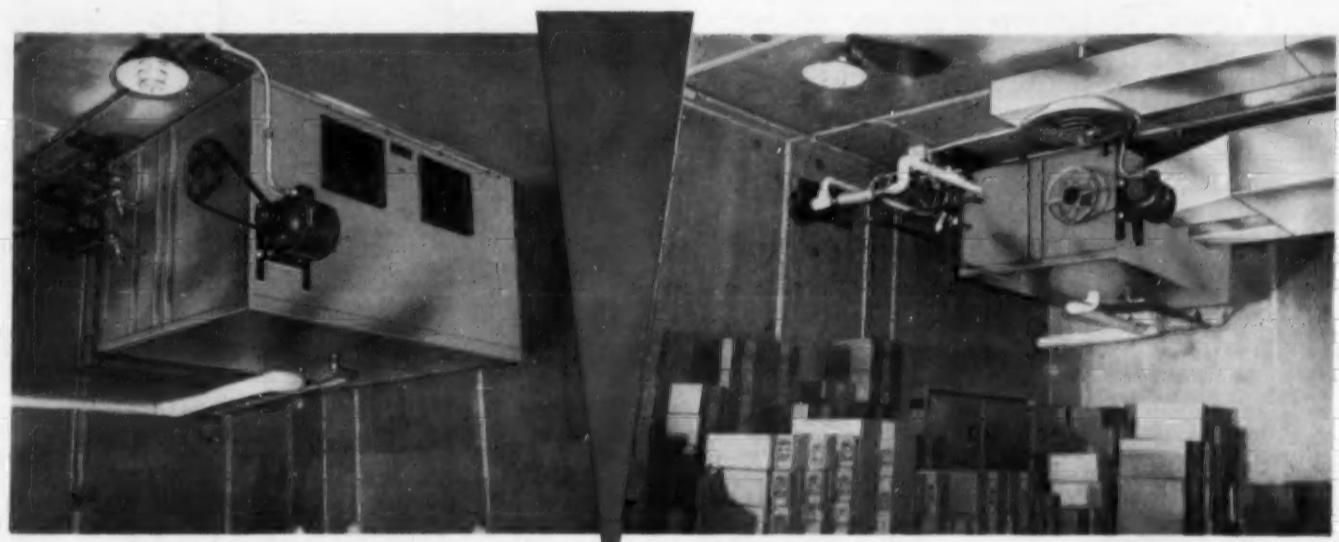
(Concluded from Page 1, Col. 4)
provides, among other things, for the exchange of research and engineering information.

Electronic air cleaning equipment works like a magnet, electrically charging air-borne particles, including germs, and collecting them on plates having an opposite electrical charge. Such equipment removes 90% or more of all air-borne particles, regardless of size.

RAPID...

Complete Defrosting With Glycol

in



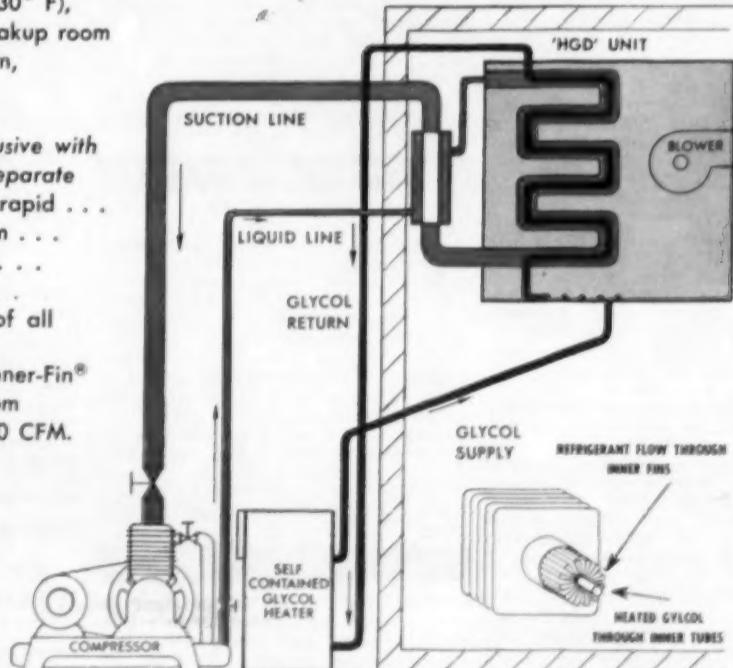
Levit Frozen Foods, Inc., Lebanon, Penna.

Refrigeration Contractor: Herre Bros., Harrisburg, Penna.
Consulting Engineers: V. C. Patterson & Associates, York, Penna.

Dunham-Bush Heavy Duty Product Coolers

Dunham-Bush 'GD' Glycol Defrost product coolers in the sharp freeze room (maintained at minus 30° F), meat storage room (minus 10° F) and breakup room (0° F) at Levitz Frozen Foods, Inc., Lebanon, Pennsylvania, require defrosting for only 30 minutes once a day. Inner-Fin® construction of these units, exclusive with Dunham-Bush, makes possible an entirely separate defrost circuit (see diagram). Defrosting is rapid... room temperature rise is held to a minimum... no dilution of defrost medium is possible... system has "separate-circuit" reliability... power economies are marked. Defrosting of all units is automatically controlled. 'GD' units, featuring all copper patented Inner-Fin® construction, are available in capacities from 22,000 to 136,000 BTU/hr., 4,800 to 18,300 CFM.

Request free catalog containing complete information on these and other units in the extensive Dunham-Bush line of quality low temperature equipment.



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